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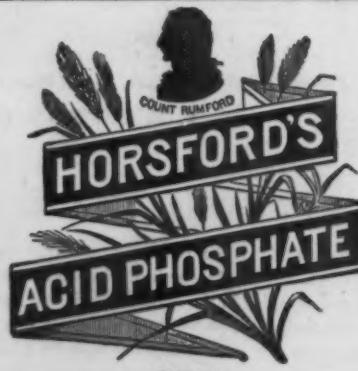
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Eclectic Magazine

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THE FALLACY OF MATERIALISM.

I.

MIND AND BODY.

WHEN once the invariable association between material changes and mental changes is recognized, there arises the question as to the nature of the association. I propose to devote the present article to its consideration.

First, let us consider the question from the stand-point of pure logic, in order to perceive all the answers or hypotheses that are logically possible, irrespective of the relative probabilities which they may present, either to the mind of the race or to that of individuals. When thus reviewed, the possible answers, or hypotheses, will be found to be six, and only six, in number—

I. The material changes may cause the mental changes.

II. The mental changes may cause the material changes.

III. There may be no causation

either way, and the constant association may be due to a harmony pre-established by a superior mind.

IV. There may be no causation either way, and the constant association may be only a phenomenal association; the two apparently diverse classes of phenomena may be really one.

V. The material order may exist only as mental.

VI. There may be no explanation possible.

I. The first of these hypotheses, or that usually called the materialistic, is one which presents great fascination to the student of natural science. By laborious investigation physiology has established the fact beyond the reach of rational dispute that there is a constant relation of concomitancy between cerebral action and thought. That is to say, within experience mind is found in constant and definite association with that highly complex and peculiar dispo-

sition of matter called a living brain, the size and elaboration of which throughout the animal kingdom stand in conspicuous proportion to the degree of intelligence displayed, and the impairment of which by anaemia, mutilation, decay, or appropriate poison, entails corresponding impairment of mental processes. Thus much being established, no reasonable man can hesitate in believing the relation between neurosis and psychosis to be a constant and concomitant relation, so that the step between this, and regarding it as a causal relation, seems indeed a small one. For, in all matters of physical inquiry, whenever we have proved a constant relation of concomitancy in a sequence A B, we call A the cause of B ; and, therefore, it has been frequently said that the evidence of causation between neurosis and psychosis is quite as valid, because just the same, as that of any other case of recognized causation. Lastly, to fortify this hypothesis, materialists point to the doctrine of the conservation of energy, which is supplied by the science of physics as a sort of buttress in this matter to the teachings of physiology. For, as this doctrine compels us to believe that the chain of physical causation involved in cerebral processes can nowhere be broken or deflected *ab extra*, we are compelled to believe that the mental processes, which are correlative associated with these cerebral processes, can nowhere escape from "the charmed circle of the forces," so that whether we look to the detailed teachings of physiology, or to the more general teachings of physics, we alike perceive that natural science appears to leave no *locus* for mind other than as a something which is in some way a result of motion.

The position of materialism being thus at first sight so naturally strong, and having been in recent years so fortified by the labors of physiology, it is not surprising that in the present generation materialism should be in the ascendant. It is the simple truth, as a learned and temperate author, speaking from the side of theology, has recently said, that

Materialism is a danger to which individuals and societies will always be more or less exposed. The present generation, however, and

especially the generation which is growing up, will obviously be very especially exposed to it ; as much so, perhaps, as any generation in the history of the world. Within the last thirty years the great sham of spiritualistic or idealistic thought . . . has been receding and decreasing ; and another, which is in the main driven by materialistic forces, has been gradually rising behind, vast and threatening. It is but its crest that we at present see ; it is but a certain vague shaking produced by it that we at present feel ; but we shall probably soon enough fail not both to see and feel it fully and distinctly.*

Such being the present importance of materialism, I shall devote the larger portion of the present paper to a consideration of this theory. Each of the points in the argument for materialism which I have mentioned above admits, of course, of elaboration ; but I think that their enumeration contains all that is essential to the theory in question. It now devolves upon us to inquire whether this theory is adequate to meet the facts.

And here I may as well at once give it as my own opinion that, of however much service the theory of materialism may be made up to a certain point, it can never be accepted by any competent mind as a final explanation of the facts with which it has to deal. Unquestionable as its use may be as a fundamental hypothesis in physiology and medicine, it is wholly inadequate as a hypothesis in philosophy. That is to say, so long as there is a constant relation of concomitancy found by experience to obtain between neural processes and mental processes, so long no harm can accrue to physical science by assuming, for its own purposes, that this relation is a causal one. But as soon as the question concerning the validity of this assumption is raised into the region of philosophy, it receives the answer that the assumption cannot be allowed to pass. For where the question becomes one not as to the *fact* of the association but as to its *nature*, philosophy, which must have regard to the facts of mind no less than to those of matter, must pronounce that the hypothesis is untenable ; for the hypothesis of this association being one of causality acting from neurosis to psychosis, can-

* Professor Flint, "Antitheistic Theories," p. 99.

not be accepted without doing violence, not merely to our faculty of reason, but to our very idea of causation itself.

A very small amount of thinking is enough to show that what I call my knowledge of the eternal world is merely a knowledge of my own mental modifications. A step further and I find that my idea of causation as a principle in the external world is derived from my knowledge of this principle in the internal world. For I find that my idea of force and energy in the external world is a mere projection of the idea which I have of effort within the region of my own consciousness; and therefore my only idea of causation is that which is originally derived from the experience which I have of this principle as obtaining among my own mental modifications.

If once we see plainly that the idea of causation is derived from within, and that what we call the evidence of physical causation is really the evidence of mental modifications following one another in a definite sequence, we shall then clearly see, not merely that we have no evidence, but that we *can have* no evidence of causation as proceeding from object to subject. However cogent the evidence may appear at first sight to be, it is found to vanish like a cloud as soon as it is exposed to the light of adequate contemplation. In the very act of thinking the evidence, we are virtually denying its possibility as evidence; for as evidence it appeals only to the mind, and since the mind can only know its own sequences, the evidence must be presenting to the mind an account of its own modifications; from the mere fact, therefore, of its being accepted as thinkable, the evidence is proved to be illusory.

To uneducated men it appears an indisputable fact of "common-sense" that the color of a flower exists as perceived in the flower, apart from any relation to the percipient mind. A physiologist has gone further into the thicket of things, and finds that the way is not so simple as this. He regards the quality of color as necessarily related to the faculty of visual perception; does not suppose that the color exists *as such* in the flower, but thinks of the something there as a certain order of vibra-

tions which, when brought into relation with consciousness through the medium of certain nerves, gives rise to the perception experienced; and in order to account for the translation into visual feeling of an event so unlike that feeling as is the process taking place in the flower, physiologists have recourse to an elaborate theory, such as that of Helmholtz or Hering. In other words, physiologists here fully recognize that color, or any other thing perceived, only exists *as perceived* in virtue of a subjective element blending with an objective; the thing *as perceived* is recognized as having no existence apart from its relation to a percipient mind. Now, although physiologists are at one with the philosophers thus far, it is to be feared that very frequently they are in the same position as the above-mentioned "uneducated men," when it becomes needful to press still further into the thicket. For after having distinguished the necessity of recognizing a mind-element in any possible theory of perception, they forthwith proceed to disregard this element when passing from the ground of perception to that of thought. Although the ideas of matter, motion, causation, and so on, are themselves as much the offspring of a thinking mind, with its environment, as the perception of color is a conceiving of the percipient mind, with *its* environment, these ideas are inconsistently supposed to stand for equivalent realities of the external world—to truly represent things that are virtually independent of any necessary relation to mind. Or, as the case has recently been well put by Principal Caird,

You cannot get mind as an ultimate product of matter, for in the very attempt to do so you have already begun with mind. The earliest step of any such inquiry involves categories of thought, and it is in terms of thought that the very problem you are investigating can be so much as stated. You cannot start in your investigations with a bare, self-identical, objective fact, strip of every ideal element or contribution from thought. The least and lowest part of outward observation is not an independent entity—fact *minus* mind, and out of which mind may, somewhere or other, be seen to emerge; but it is fact or object as it appears to an observing mind, in the medium of thought, having mind or thought as an inseparable factor of it. Whether there be such a thing as an absolute world outside of thought, whether there be such things as matter and

material atoms existing in themselves before any mind begins to perceive or think about them, is not the question before us. If it were possible to conceive of such atoms, at any rate you, before you begin to make anything of them, must think them ; and you can never, by thinking about atoms, prove that there is no such thing as thought other than as an ultimate product of atoms. Before you could reach thought or mind as a last result you must needs eliminate from it the data of the problem with which you start, and that you can never do, any more than you can stand on your own shoulders or outstrip your own shadow. . . . In one word, to constitute the reality of the outward world—to make possible the minimum of knowledge, nay, the very existence for us of molecules and atoms—you must needs presuppose that thought or thinking self, which some would persuade us is to be educated or evolved from them. . . . To make thought a function of matter is thus, simply, to make thought a function of itself.

From this reasoning there can be no escape ; and it is more rational for a man to believe that color exists as such in a flower than, after having plainly seen that such cannot be the case, forthwith to disregard the teaching of this analogy, and to imagine that any apparent evidence of mind as a result of matter or motion can possibly be entertained as real evidence.

Remembering, then, that from the nature of this particular case it is as impossible for mind to prove its own causation as it is for water to rise above its source, it may still be well, for the sake of further argument, to sink this general consideration, and to regard such spurious evidence of causation as is presented by materialism without prejudice arising from its being thus *prima facie* inadmissible.

Materialists, as already observed, are fond of saying that the evidence of causation from neurosis to psychosis is as good as such evidence can be proved to be in any other case. Now, quite apart from the general considerations just adduced to show that from the peculiar nature of this case there can here be no such evidence at all—quite apart from this, and treating the problem on the lower ground of the supposed analogy, it may be clearly shown that the statement is untrue. For a little thought will show that in point of fact the only resemblance between this supposed case of causation and all other cases of recognized causation, consists in the invariability of the correlation

between cerebral processes and mental processes ; in all other points the analogy fails. For in all cases of recognized causation there is a perceived connection between the cause and the effect ; the antecedents are physical, and the consequents are physical. But in the case before us there is no perceived, or even conceivable, connection between the cause and the effect ; for the causes are supposed to be physical and the effects mental. And the antithesis thus posited is alone sufficient to separate, *toto caelo*, the case of causation supposed from that of all cases of causation recognized. From the singularly clear and well-balanced statement of this subject given by Professor Allman in his Presidential Address before the British Association I may here fitly quote the following :

If we could see any analogy between thought and any one of the admitted phenomena of matter, we should be justified in the first of these conclusions (*i.e.*, that of materialism) as the simplest, and as affording a hypothesis most in accordance with the comprehensiveness of natural laws ; but between thought and the physical phenomena of matter there is not only no analogy, but no conceivable analogy ; and the obvious and continuous path which we have hitherto followed up in our reasonings from the phenomena of lifeless matter through those of living matter here comes suddenly to an end. The chasm between unconscious life and thought is deep and impassable, and no transitional phenomena can be found by which, as by a bridge, we may span it over.

And, not unduly to multiply quotations, I shall only adduce one more from another of the few eminent men of science who have seen their way clearly in this matter, and have expressed what they have seen in language as clear as their vision. Professor Tyndall writes :

The passage from the physics of the brain to the corresponding facts of consciousness is unthinkable. Granted that a definite thought and a definite molecular action in the brain occur simultaneously, we do not possess the intellectual organ, nor apparently any rudiment of the organ, which would enable us to pass, by a process of reasoning, from the one phenomenon to the other. Were our minds and senses so expanded, strengthened, and illuminated, as to enable us to see and feel the very molecules of the brain ; were we capable of following all their motions, all their groupings, all their electrical discharges, if there be such ; and were we intimately acquainted with the corresponding states of thought and feeling, we should probably be as far as ever from the

solution of the problem, How are these physical processes connected with the facts of consciousness? The chasm between the two classes of phenomena would still remain intellectually impassable.

Next, in all cases of recognized causation there is a perceived *equivalency* between cause and effect, such equivalency belonging to the very essence of that in which we conceive causation to consist. But as between matter and motion on the one side, and feeling and thought on the other, there can be no such equivalency conceivable. That no such equivalency is conceivable may be rendered apparent on grounds of materialism itself. For materialism is bound to accept the fundamental doctrine of modern physics—that, *viz.*, as to the conservation of energy—and therefore it becomes evident that unless we assimilate thought with energy, there is no possibility of a causal relation, or a relation of equivalency, as obtaining between the one and the other. For however little we may know about brain-dynamics, materialists, "at least, must take it for granted that in every process of cerebration the matter and force concerned are indestructable quantities, and therefore that all their possible equations are fully satisfied within the sphere of cerebration—no quantum can be left over to pass into the sphere of thought. Howsoever complex we may suppose the flux and reflux of forces to be within the structure of a living brain, it is no more possible for any one of the forces concerned to escape from brain to mind, than it would be for such an escape to occur in a steam-engine or a watch; the doctrine of the conservation of energy forms an inseparable bar to the supposition than any equation in the region of physics can be left unsatisfied, in order to pass over and satisfy some other equation in the region of psychics.

Of course in saying this I am aware that some of the more clear-sighted of the materialists have plainly perceived this difficulty in all its magnitude, and so have felt that unless it can be met, any theory* of materialism must necessarily contain a radical contradiction of principles. Some few materialists have therefore sought to meet the difficulty in the only way it can be met, *viz.*, by

boldly asserting the possibility of thought and energy being transmutable. On this view thought becomes a mode of motion, and takes its rank among the forces as identical in nature with heat, light, electricity, and the rest. But this view is also inherently impossible. For suppose, as a matter of argument, that physiologists should discover a mechanical equivalent of thought, so that we might estimate the value of a calculation in thermal units, or the "labor of love" in foot-pounds: still we should not be out of our difficulties; we should only have cut a twist of flax to find a lock of iron. For by thus assimilating thought with energy, we should in no wise have explained the fundamental antithesis between subject and object. The fact would remain, if possible, more unaccountable than ever, that mind should present absolutely no point of real analogy with motion. Involved with the essential idea of motion is the idea of extension; suppress the latter and the former must necessarily vanish, for motion only means transition in space of something itself extended. But thought, as far as we can possibly know it, is known and distinguished by the very peculiarity of not having extension. Therefore, even if we were to find a mechanical equivalent of thought, thought would still not be proved a mode of motion. On the contrary, what would be proved would be that, in becoming transformed into thought, energy had ceased to be energy; in passing out of its relation to space it would cease to exist as energy, and if it again passed into that relation it would only be by starting *de novo* on a new course of history. Therefore the proof that thought has a mechanical equivalent would simply amount to the proof, not that thought *is* energy, but that thought *destroys* energy. And if materialism were to prove this, materialism would commit suicide. For if once it were proved that the relation of energy to thought is such that thought is able to absorb or temporarily to annihilate energy, the whole argument of materialism would be inverted, and whatever evidence there is of causation as between mind and matter would become available in all its force on the side of spiritualism. This seems plain,

for even if it were conceivable—which most distinctly it is not—that a motor could ever become a motive, and so pass from the sphere of dynamics into the sphere of consciousness, the fact would go to prove, not that the motor was the cause of the motive, but rather that the motive was the cause of destroying the motor; so that at that point the otherwise unbroken chain of physical sequences was interrupted by the motive striking in upon it, and in virtue of the mysterious power supposed to have been proved by physiology, cancelling the motor, so allowing the nerve-centre to act as determined by the motive.

Of course I wish it to be understood that I believe we are here dealing with what I may call, in perhaps suitably contradictory terms, inconceivable conceptions. But let it be remembered that I am not responsible for this ambiguity; I am only showing what must be the necessary outcome of analysis if we begin by endeavoring phenomenally to unite the most antithetical of elements—mind and motion. Materialism, at least, will not be the gainer should it ever be proved that in the complex operations of the brain a unique exception occurs to the otherwise universal law of the conservation of energy in space.

We may, therefore, quit the suggestion that the difficulty experienced by materialism of showing an equivalency between neurosis and psychosis can ever be met by assuming that some day mental processes may admit of being expressed in terms of physical. But before leaving this difficulty with regard to equivalency, I may mention one other point that seems to me of importance in connection with it. I have already said that if we suppose causation to proceed from brain to mind, we must suppose this essential requirement of equivalency between the cerebral causes and the mental effects to be satisfied somewhere. But where are we to say that it is satisfied? Even if we suppose that thought has a mechanical equivalent, and that causation proceeds in the direction from energy to thought, still, when we have regard to the supposed effects, we find that even yet they bear no kind of equivalency to their

supposed causes. The brain of a Shakespeare probably did not, as a system, exhibit so much energy as does the brain of an elephant; and the cerebral operations of a Darwin may not have had a very perceptibly larger mechanical equivalent than those of a banker's clerk. Yet in the world of thought the difference between our estimate of the results, or "work done," in these cases is such as to drive all ideas of equivalency to the winds. Doubtless, a materialist will answer that it is not fair to take our estimate of "work done" in the world of mind as the real equivalent of the energy supposed to have passed over from the world of motion, seeing that our estimate is based, not on the quantitative amount of thought produced, but rather on its qualitative character with reference to the social requirements of the race. But to this it is enough to answer that we have no means of gauging the quantity of thought produced other than by having regard to its effects in the world of mind, and this we cannot do except by having regard to its qualitative character. Many a man, for instance, must have consumed more than a thousand times the brain-substance and brain-energy that Shelley expended over his "*Ode to a Skylark*," and yet as a result have produced an utterly worthless poem. Now, in what way are we to estimate the "work done" in two such cases, except by looking to the relative effects produced in the only region where they are produced, viz. in the region of mind? Yet, when we do so estimate them, what becomes of the evidence of equivalency between the physical causes and the psychical effects?

Now if thus, whether or not we try to form an estimate, it is impossible to show any semblance of equivalency between the supposed causes and the alleged effects, how can any one be found to say that the evidence of causation is here as valid as it is in any other case? The truth rather is that the alleged effects stand out of every relation to the supposed causes, with the exception only of being associated in time.

There still remains one other enormous difficulty in the way of the theory of materialism; it necessarily embodies the theory of *conscious automatism*, and

is therefore called upon to explain why consciousness and thought have ever appeared upon the scene of things at all. That this is the necessary position of materialism is easily proved as follows. We have already seen that materialism would commit suicide by supposing that energy could be transmuted into thought, for this would amount to nothing short of supposing the destruction of energy as such ; and to suppose energy thus destructible would be to open wide the door of spiritualism. Materialism, therefore, is logically bound to argue in this way : We cannot conceive of a conscious idea, or mental change, as in any way affecting the course of a cerebral reflex, or material change ; while, on the other hand, our knowledge of the conservation of energy teaches us as an axiom that the cerebral changes must determine each other in their sequence as in a continuous series. Nowhere can we suppose the physical process to be interrupted or diverted by the psychical process ; and therefore we must conclude that thought and volition really play no part whatever in determining action. Thoughts and feelings are but indices which show in the mirror of the mind certain changes that are proceeding in the matter of the brain, and are as inefficient in influencing those changes as the shadow of a cloud is powerless to direct the movements of that of which it is the shadow.

But when materialism reaches, in a clear and articulate manner, this conclusion as a conclusion necessary from its premises, it becomes opposed at once to common-sense and to the requirements of methodical reason. It becomes opposed to common-sense because we all feel it is practically impossible to believe that the world would now have been exactly what it is even if consciousness, thought, and volition had never appeared upon the scene—that railway trains would have been running filled with mindless passengers, or that telephones would have been invented by brains that could not think to speak to ears that could not hear. And the conclusion is opposed to the requirements of methodical reason, because reason to be methodical is bound to have an answer to the question that im-

mediately arises from the conclusion. This question simply is, Why have consciousness, thought, and volition ever been called into existence ; and why are they related, as they are related, to cerebral action ? Materialism, by here undertaking to prove that these things stand uselessly isolated from all other things, is bound to show some reason why they ever came to be, and to be what they are. For observe, it is not merely that these things exist in a supposed unnecessary relation to all other things ; the fact to be explained is that they exist in a most intimately woven and invariable connection with certain highly complex forms of organic structure and certain highly peculiar distributions of physical force. Yet these unique and extraordinary things are supposed by automatism to be always results and never causes ; in the theatre of things they are supposed to be always spectators and never actors ; in the laboratory of life they are supposed to be always by products ; and therefore in the order of Nature they are supposed to have no *raison d'être*. Such a state of matters would be accountable enough if the stream of mental changes were but partly, occasionally, and imperfectly associated with the stream of material changes ; but as the association is so minute, invariable, and precise, the hypothesis of the association being merely accidental, or *not requiring explanation*, becomes, at the bar of methodical reasoning, self-convicted of absurdity.

The state of the case, then, simply is that two distinct facts stand to be explained by the theory of conscious automatism—first, why psychosis should ever have been developed as a mysterious appendage to neurosis ; and, secondly, why the association between these things should be so intimate and precise. Assuredly, on the principles of evolution, which materialists at least cannot afford to disregard, it would be a wholly anomalous fact that so wide and general a class of phenomena as those of mind should have become developed in constantly ascending degrees throughout the animal kingdom, if they are entirely without use to animals. If psychosis is, as supposed, a function of neurosis, the doctrine of

natural selection alone would forbid us to imagine that this function differs from all other functions in being itself functionless. If it would be detrimental to the theory of natural selection that any one isolated structure—such as the tail of a rattlesnake—should be adapted to perform a function useless to the animal possessing it, how utterly destructive of that theory would be the fact that all the phenomena of mind have been elaborated as functions of nerve-tissue without any one of them ever having been of any use either to the individual or to the species. And the difficulty that thus arises is magnified without limit when we remember that the phenomena of mind are invariable in their association with cerebral structure, grade for grade, and process for process.

It is of no argumentative use to point to the fact that many adaptive movements in animals are performed by nerve-centres apart from any association with consciousness or volition, because all the facts on this head go to prove that consciousness and volition come in most suggestively just where adaptive movements begin to grow varied and complex, and then continue to develop with a constant proportional reference to the growing variety and complexity of these movements. The facts, therefore, irresistibly lead to the conclusion (if we argue here as we should in the case of any other function) that consciousness and volition are functions of nerve-tissue superadded to its previous functions, in order to meet new and more complex demands on its powers of adaptation.

Neither is it of any argumentative use to point to the fact that adaptive actions which originally are performed with conscious volition may by practice come to be performed without conscious volition. For it is certain that no adaptive action of quite a novel kind is ever performed from the first without consciousness of its performance, and therefore, although it is true that by repetition its performance may become mechanical or unconscious, this does not prove that consciousness was without use in producing the adaptive action. It only proves that after a nervous mechanism has been elaborated by

the help of consciousness, consciousness may be withdrawn and leave the finished mechanism to work alone; the structure having been completed, the scaffolding necessary to its completion may be removed.

But passing over this difficulty which the theory of conscious automatism seems bound to encounter in its collision with the theory of natural selection, the most insuperable of all its difficulties arises from the bare fact, which it cannot explain, that conscious intelligence exists, and exists in the most intimate relation with one peculiar kind of material structure. For automatists must concede that the evidence of causation in the region of mind is at least as cogent as it is in the region of matter, seeing that the whole science of psychology is only rendered possible as a science by the fundamental fact of observation that mental antecedents determine mental consequents. Therefore, if we call a physical sequence A, B, C, and a mental sequence a, b, c, automatists have to explain, not merely why there should be such a thing as a mental sequence at all, but also why the sequence a, b, c should always proceed, link for link, with the sequence A, B, C. It clearly is no answer to say that the sequence A, B, C implies the successive activity of certain definite nerve-centres A', B', C', which have for their subjective effects the sequence a, b, c, so that whenever the sequence A, B, C occurs, the sequence a, b, c must likewise occur. This is no answer, because it merely restates the hypothesis of automatism, and begs the whole question to be discussed. What methodical reason demands as an answer is simply *why* the sequence A, B, C, even though we freely grant it due to the successive activity of certain definite nerve-centres, should be attended by the sequence a, b, c. Reason perceives clearly enough that the sequence a, b, c belongs to a wholly different category from the sequence A, B, C, the one being immediately known as a process taking place in a something which is without extension or physical properties of any kind, and the other taking place in a something which, when translated by the previous something, we recognize as having extension and the other antithet-

ical properties which we together class as physical. There would, of course, be no difficulty if the sequence A, B, C continued through any amount of complexity in the same conceivable category of being ; so that there would be nothing actually inconceivable in cerebral sequence-changes running through D, E, F, etc., to an extent sufficient to cause *unconscious* automatism of any degree of complexity. But that which does require explanation from automatists is why automatism should have become associated with consciousness, and this so intimately that every change in the sequence A, B, C, etc., is accompanied by a particular and corresponding change in the sequence a, b, c, etc. Thus, to take a definite illustration, if on seeing the sun I think of a paper on solar physics, and from this pass to thinking of Mr. Norman Lockyer, and from this to speculating on the probability of certain supposed elements being really compounds, there is here a definite causal connection in the sequence of my thoughts. But it is the last extravagance of absurdity to tell me that the accompanying causal sequences going on in my brain happen to have been just the sequences which, by taking place in the brain, give rise to another train of causal sequences taking place in the mind, the two trains of sequences being each definite and coherent in themselves, and yet each proceeding link for link in lines parallel with the other. Without some theory of pre-established harmony—which, of course, it is no part of automatism to entertain—it would, on the doctrine of chances alone, be impossible to suppose that the causal sequences in the brain always happen to be just those which, by running link for link with another set of causal sequences taking place in the mind, enable both the series to be definite and coherent in themselves. Therefore, before reason can allow the theory of automatism to pass, it must be told how this wonderful fact of parallelism is to be explained. There must be some connection between the intrinsically coherent series A, B, C and the no less intrinsically coherent sequence a, b, c, which may be taken as an explanation why they coincide each to each. What is this connection ? We do not

know ; but we have not seen that, whatever it is, it cannot be an ordinary causal connection—first, because the doctrine of the conservation of energy makes it incumbent on us to believe that the procession of physical cause and effect is complete within the region of brain—a closed circle, as it were, from which no energy can, without argumentative suicide, be supposed to escape into the region of mind ; and next, because, even were this difficulty disregarded, it is unaccountable that the causative influence (whatever it is supposed to be), which passes over from the region of physics into that of psychics, should be such as to render the psychical series coherent in itself, when on the physical side the series must be determined by purely physical conditions, having no reference whatsoever to psychical requirements.

Thus it is argumentatively impossible for materialism to elude the necessity of explaining the kind of connection which it supposes to subsist between neurosis and psychosis ; and forasmuch as the above considerations clearly show this connection cannot be accepted as one of ordinary causality without some answer being given to the questions which reason has to ask, materialism must be ruled out of court if she fails to respond to the demand. But it is no less clearly impossible that she can respond to the demand, and therefore at the bar of Philosophy materialism must be pronounced, for this as well as for the reasons previously cited, conspicuously inadequate to account for the facts.

II. Having thus found the theory of materialism on every side, or in every relation, incompetent to meet the facts, we shall next pass to the second of the six theories named at the beginning of this paper as possible, *i.e.*, the theory of spiritualism. And here I can afford to be more brief, inasmuch as the theory of spiritualism being merely the theory of materialism inverted, most of the arguments and considerations adduced in our analysis of the latter theory are available, *mutatis mutandis*, for our analysis of the former. Thus, it is evident that the theory of spiritualism labors under all the same disabilities as

does the converse theory of materialism, so far as the difficulty of supposing a causal relation is concerned. For in whatever measure it is inconceivable that neurosis should cause psychosis, in the same measure must it be inconceivable that psychosis should cause neurosis, seeing that the correlatives are in each case the same, and that it is as impossible to imagine mind affecting energy as it is to imagine energy affecting mind. The only way in which mind could affect energy would be by either creating or destroying it, and the only way in which energy could affect mind would be by passing over into and itself becoming mind; but as a matter of causation these processes are equally unimaginable, for they would equally involve collision with the conservation of energy. Again, even were this not so, to imagine mind in any way directing the stream of physical causation is to suppose mind becoming, for a time at least, a part of that stream, even though the contact should only be, as it were, at a point. But how is this to be supposed? As Professor Clifford has said, in his essay on "Body and Mind":

It may be conceived that, at the same time with every exercise of volition, there is a disturbance of the physical laws; but this disturbance, being perceptible to me, would be a physical fact accompanying the volition, and could not be the volition itself, which is not perceptible to me. Whether there is such a disturbance of the physical laws or no is a question of fact to which we have the best of reasons for giving a negative answer; but the assertion that another man's volition, a feeling in his consciousness which I cannot perceive, is part of the train of physical facts which I may perceive—this is neither true nor untrue, but nonsense; it is a combination of words whose corresponding ideas will not go together.

Thus it is equally "nonsense" to speak of mind causing cerebral action, or of cerebral action causing mind—nonsense of the same kind as it would be to speak of the "Pickwick Papers" causing a storm at sea, or the eruption of a volcano causing the forty-seventh proposition in the first book of Euclid.

There is indeed one, and only one, respect in which the alternative hypotheses of materialism and spiritualism differ. If the difficulty common to them both were supposed to be overcome or disregarded (*i.e.*, the difficulty of supposing a causal relation either

way), spiritualism supposes the causation to proceed from that which is the source of our idea of causality—the mind; and not from that into which this idea has been read by the mind. Thus, if causation were to be accepted as a possibility either way, it would be more reasonable to suppose mental changes the causes of neural changes than *vice versa*; for we should then be starting at least with the substance of immediate knowledge, and not with the reflection of that knowledge in what we call the external world. But this consideration may be disregarded inasmuch as it is of no help unless we accept the position of pure idealism—a position which I shall disregard, not because I suppose it to admit of logical refutation, but because I feel it to be illusive of argument; it is the position numbered V.

III. We must therefore dismiss the two first, or converse, theories as to the relation of mind and body; if either of these present any truth, they do not present it in a form that the mind can apprehend, and the attempt to unite subject and object by an imaginary link of causality is equally futile in whichever direction we may choose to imagine the link to be turned. We have, therefore, next supplied to us the theory of pre-established harmony, which discards the idea of a causal connection either way, and substitutes the idea of perfect parallelism between mental changes and bodily changes having been pre-determined by a superior mind. This theory may also be dismissed, not because it is open to any logical disproof, but rather because it admits of no proof. It is a wholly gratuitous guess, and, being besides a very clumsy notion, is not nowadays expressly entertained by any clear thinker.

IV. The next theory that we have to consider is a highly important one; for, in the language of Clifford, it "is not merely a speculation, but is a result to which all the greatest minds that have studied this question in the right way have gradually been approximating for a long time." This theory is that mental phenomena and physical phenomena, although apparently diverse, are really identical.

The fact of there being so constant and precise a parallelism between neurosis and psychosis affords, according to Clifford, "a very strong presumption that we have here something which can be explained; that it is possible to find a reason for this exact correspondence." But if the idea of the correspondence being due to a relation of causality is found, as we have seen it to be, untenable as an explanation, there remains this one other solution possible, viz., that there is no parallelism to be explained, that there is only one stream of events, and so of causality, that the phenomena of mind and the phenomena of matter are ontologically one, being double only, as Lewes expresses it, in relation to our modes of apprehension. Just as the tremors of a string are phenomenally very different according as our mode of apprehending them is with the eye or with the ear, so, it is supposed, the tremors of a nerve are at the same time both physical and mental; apparently dual, the event may be really singular, as an air on the violin is one with the vibrations of catgut.

It is clear, however, that if the physical and the mental are thus supposed to be identical in the brain, the physical and the mental must be identical universally; for there is no reason to suppose that the physics of the brain differ from physics in general. This was a truth which Lewes in his statements of the theory did not seem to have perceived, and he therefore justly laid his doctrine open to the criticism of Tyndall, who said in his Birmingham lecture, "It is no explanation to say that the objective and subjective are two sides of one and the same phenomenon. Why should the phenomenon have two sides? This is the very core of the difficulty. There are plenty of molecular motions which do not exhibit this two-sidedness. Does water think or feel when it forms into frost-fern upon a window-pane? If not, why should the molecular motion of the brain be yoked to this mysterious companion—consciousness?" But if we suppose that all physical motions are likewise mental, this criticism is disarmed. We have not, indeed, to suppose that all physical motions "think or feel;" we have only to suppose that they present the raw material of mind

which has not as yet been wrought up into feeling or thought—just as the physics of crystallization has not proceeded so far in complexity and refinement as have the physics of life.

Professor Clifford has handled this subject in his short essay on the "Nature of Things in Themselves," which is the most closely reasoned and profound of all his philosophical writings. The conclusion at which he arrives—and as a matter of logic the conclusion seems inevitable—is that we cannot anywhere draw a line between physics and psychics. That is to say:

Mind-stuff is the reality which we perceive as matter. . . . A moving molecule of inorganic matter does not possess mind or consciousness, but it possesses a small piece of mind-stuff. When molecules are so combined together as to form the film on the under side of a jelly-fish, the elements of mind-stuff which go along with them are so combined as to form the faint beginnings of sentience. When the molecules are so combined as to form the brain and nervous system of a vertebrate, the corresponding elements of mind-stuff are so combined as to form some kind of consciousness. . . . When matter takes the complex form of a living human brain, the corresponding mind-stuff takes the form of a human consciousness, having intelligence and volition.

This view, which identifies mind with matter in motion, serves to escape many of the difficulties with which the views previously considered are beset. If there is only one substance, and all "the universe consists entirely of mind-stuff," we have no longer anything to do with any question of priority as between mind and matter, or of causation as proceeding from one substance to another; the parallelism between neurosis and psychosis is not really parallelism, but identity; the requirements of equivalency are therefore satisfied in the world of mind and in the world of motion simultaneously; while natural selection may operate upon intelligence as upon organs—for intelligence being, not a result of matter in motion, but itself matter in motion, natural selection working upon the movements (functions) of organs, may thereby at the same time be working upon intelligence. It may also be said of this view that it approximates to the doctrine of Hegel, which gives a logical priority to mind, such that no existence is supposed by it to be possible except

as standing in relation to mind. The two doctrines, however, although allied, are not identical ; for while they agree in denying the possibility of existence apart from mind, the one supposes that mind may exist in the most rudimentary form as a non-conscious moving molecule of matter, while the other supposes mind to exist only as capable of cognition. To Hegel, therefore, there can be no being without knowing, while to Clifford there may be being without sentience ; but to neither can there be matter without the element of mind.

It remains to observe that in my opinion this view is not what Clifford regarded it—viz., an explanation of "mind and brain being associated in a definite way." An explanation means a classifying of unknown facts with facts previously known ; but if the truth should be that mental and dynamical processes are identical even by discovering this truth we should not thereby explain their apparent diversity. For *us* the phenomena would still remain duplex, notwithstanding that the "things in themselves" are really one. For to *us* phenomena are the only realities ; mind cannot transcend itself so as to know the *Ding an sich* out of relation to itself, and therefore things in themselves, whatever they may be, are not facts for mind—are not facts for us. Although it may be true that the vibrations of a string and a strain of music are in an absolute sense one and the same, still this truth does not explain their diversity in consciousness. And similarly with the molecular motion of a nerve and thought. Even if we believe that in the world of ontology the antithesis between subject and object is dissolved and the two fused into one, still for us, who can only know phenomenally, the antithesis remains. Only if mind could transcend all its present conditions, and, by knowing facts of ontology out of their present relation to itself, form a wholly new category of explanations—only then could the mind hope to explain how phenomenal diversity is ontological unity.

Thus, even if Clifford's doctrine of mind-stuff (I call it Clifford's doctrine because it has been more clearly as well as more profoundly stated by him

than by any one else) were granted, it would not, as he seemed to think, supply any *explanation* of the parallelism between neurosis and psychosis ; even if conceded true ontologically, it would be but a re-statement of the fact as already known to mind phenomenally. Let it be imagined, for example, that the truth of the doctrine were proved experimentally by a machine being constructed so elaborate in its multiple play of forces that it should begin to show evidence of consciousness and mind ; let it be imagined, for instance, as a *teachable machine*. Although much attention would doubtless be excited by the fact that the phenomena of mind could thus be proved to be produced artificially in a piece of mechanism, still I do not see how it is conceivable that the fact itself could be *explained* ; we could then only say it is a fact that when mechanism reaches a certain kind and degree of complexity, the forces concerned in the working of mechanism begin to take on the clothing of subjectivity. Our wisdom then would be to rest in this fact as ultimate, and *because* ultimate not admitting of explanation—that is, not admitting of being classified with any facts of a still more ultimate or general character.

Hence, it seems to me that the theory which we are considering, or that which I have labelled No. IV., really merges into the theory which I have labelled No. VI., or the theory that the association between mind and matter is one which is beyond the reach of human faculties to explain. It would no doubt be a matter of great importance to show succinctly that there is a necessary reason why the contemplated facts should not admit of explanation ; and this, it seems to me, is what the doctrine of mind-stuff would do were it established ; it would show the facts to be the most ultimate that mind can reach, and thereby show that of these facts no explanation is required.

VI. Thus, whether or not we feel inclined to adopt the doctrine of mind-stuff, it seems clear that the only position in which we can find intellectual rest is that which is supplied by the sixth and last possibility (of which Hegelism seems to me an adumbrated expression)

—the possibility, namely, that the relation between mind and matter is inexplicable. For if, as we have found, a causal connection between matter and mind or *vice versa*, and the supposition of a pre-established harmony are alike untenable, there remains, besides the doctrine of idealism, only the doctrine of identity in substance, which, as we have also seen, amounts to a statement of the relation between subject and object as inexplicable. And this statement has been virtually reached *a priori* at the beginning of this article by the proof that, in order to the framing of any explanation, we must begin by accepting mind, or that which constructs an explanation, as already present. Therefore, both *a priori* and *a posteriori* we find that the relation between subject and object is inexplicable.

If this seems an unsatisfactory termination to reach, we must remember that as explanation only means the classifying of unknown facts with facts previously known, it follows that at the end of all possible explanations there must be a final mystery, which, as forming the basis of all possible explanations, cannot itself be explained. It is, therefore, not in any proper or usual sense of the word a mystery at all ; it is merely a fact which itself requires no explanation, because it is a fact than which none can be more ultimate. Such, for instance, is the case with Existence ; to suppose Existence susceptible of explanation would be to suppose something more ultimate into which Existence could be merged, which is absurd. Now whether or not, as theory No. IV. supposes, the relation between mind and matter, subject and object, is a relation that springs immediately from, or is identical with, the fact of Existence as Existence, at least in the present state of our faculties and information we can see good reasons for supposing that such is probably the case. And whether or not such is really the case, if for the present we cannot see farther than the distant looming of this probability, our wisdom is to regard this probability as the most ultimate that we have hitherto been able to discern. But who shall set bounds to the progress of knowledge ? And if in the future this distant loom of probability

should be found by such progress to proceed from the stable land of certainty, mankind may well feel satisfied to have found that the voyage of Philosophy has proved the World of Things to be a sphere—that all horizons were relative to our imperfect faculties, and that the shores of Mind from which we started are proved by our return to be one and continuous with all the other lands of Being.

GEORGE J. ROMANES.

II.

MATTER AND MIND.

SPECULATION and discussion as to the relation in which matter and mind stand to each other have, as we all know, existed for centuries, and will, as we all probably believe, exist for centuries to come. Whether, on the whole, materialism is on the increase I do not know ; perhaps it is ; certainly some of the utterances of physical students, made during recent years, tend to give currency to materialistic views ; and a vast number of persons who adopt opinions upon superficial grounds, and who have not the qualifications necessary for testing their validity, have probably been influenced in a materialistic direction. My purpose, however, in this essay is not to discuss the growth of materialism, or its diminution ; I desire rather to urge that the subject has not yet been sufficiently studied in the light of modern knowledge concerning the properties of matter. Whether we know more than our fathers concerning mind, and its nature and its operations, may be open to argument, but concerning matter there is no opening for argument at all ; knowledge of the material universe and its laws is just the most distinguishing feature of the knowledge of our own time ; and it seems only probable that this knowledge should be able to throw a reflected light into that more subtle and difficult region of investigation which deals with that which is the antithesis of matter, and which we usually describe by the word *mind*.

A careful consideration of this subject has led me to the conclusion that the existence of mind, apart from and distinct from matter, is susceptible of

demonstration of a *quasi*-mathematical kind by reference to the knowledge which we possess of matter itself. If I am right, then a knowledge of matter leads not to the establishment, but to the destruction, of materialism ; and certainly this result is sufficiently important to be worth some trouble in the attempt to ascertain it : to be able to say positively that matter itself denies its own supremacy, and bears witness to the existence of something beyond and above itself, is no inconsiderable thing. I invite my readers, therefore, to accompany me in an investigation which I trust may prove interesting, the object of which I am sure is important, but which must be somewhat difficult, and may, I fear, be regarded by some persons as dry.

It is necessary in the beginning to say that the prime purpose of a philosopher who desires to treat of matter must be not to define matter, but to determine by accurate and patient investigation what matter really is, what at least are its properties, what can be asserted concerning it as absolutely and demonstrably true. We gain nothing by assuming the beginning of things or the primitive matter to have been water, as Thales did ; nor air, as Anaximenes ; nor fire, as Heraclitus. We gain nothing by adopting an arbitrary hypothesis concerning atoms, like that to which the poetry of Lucretius has given so much currency, and of which some recent scientific writers have spoken with an approbation in which I confess myself to be unable to sympathize. Neither do we gain anything by endeavoring to define matter by reference to certain qualities, such as extension, form, impenetrability, and the like. Still less do we gain anything by speaking contemptuously of "brute matter," and exhibiting a jealousy of attributing to matter any inherent or essential qualities. Yet these modes of dealing with matter are not all extinct among us ; and it is apparently by a recoil from the ungenerous spirit, If I may use such a phrase, in which matter has sometimes been treated, that some have passed the bounds of strict scientific reasoning, attributed to matter qualities which confessedly cannot be proved, and have persuaded themselves

that they can see in matter as such the potency of all terrestrial life.

Let me, however, insert a paragraph of explanation with regard to definitions of matter. A treatise on mechanics will generally or even necessarily commence with such a definition ; and it may be argued that, in order to deal with the mechanics of matter, we must first define what it is with which we purpose to deal. This is quite true. I look at Poisson's "*Traité de Mécanique*," and I find the first sentence to be as follows : "La matière est tout ce qui peut affecter nos sens d'une manière quelconque." This is of course, in a certain sense, a definition ; but it is not so in the sense of saying *a priori* what the properties of matter are : there is nothing about extension or impenetrability : all that Poisson does is to say that his treatise deals with that which affects our senses, what we can see, feel, and touch ; and he goes no further. When he enters upon his exposition of mechanics, he then picks out those properties of matter which belong to his special subject, not asserting that these are all the properties of matter, but only that they are the properties with which in his treatise he intends to deal. And this selection of properties, for the purpose of a particular treatise, should be borne in mind, as that which every scientific writer is compelled to do. For example, turning to Professor Challis's "*Principles of Mathematics and Physics*," I find him saying, when passing from geometry to mechanics, "Matter has *form* and *inertia* and being attracted to the earth by the force of gravity, has *weight*. The force of gravity being given, the weight of a body measures its *quantity of matter*." This, it will be observed, is not a definition of matter absolutely, but what may be called a definition *ad hoc* : it is the expression of certain properties which are dealt with in a statical treatise, but not the assertion that these properties are by any means exhaustive of the qualities of matter.

It may even happen that in a treatise on mechanics a mathematician may adopt from time to time definitions to which nothing in nature accurately corresponds. When he defines a *rigid* body, as a body which retains its form

under the action of any pressure, however great, he deals with an imaginary thing, just as a geometrician, in speaking of a line as having length but not breadth, speaks of an imaginary thing ; but there are bodies in nature which are sufficiently nearly rigid to be regarded as practically having the same qualities as the mathematician's imaginary rigid body, and we can construct physical lines which may be practically regarded as lines according to the geometrical definition. In like manner no actual fluid coincides with the definition used for mathematical purposes ; and no physical fluid is absolutely incompressible, as mathematical fluids are assumed to be.

Let me emphasize what I have now written by referring to an example of the treatment of matter by attempting to define it, the method which I have ventured to describe as erroneous in principle. The example is taken from Euler's "Letters to a German Princess on Natural Philosophy." I quote it with all reverence for Euler's genius.

"Here, then," writes Euler, "we are reduced to explain what is to be understood by the term *matter*, without which extension cannot be body. Now, the signification of these two terms is so much the same, that all body is matter, and all matter is body ; so that even now we have made no great progress. We easily discover, however, a general character, inseparable from all matter, and consequently pertaining to all bodies ; it is *impenetrability*, the impossibility of being penetrated by other bodies, or the impossibility that two bodies should occupy the same place at once. In truth, impenetrability is what a vacuum wants in order to be a body."

A number of obvious objections to this notion of impenetrability are adduced and refuted by Euler ; as that the hand can be easily moved through water ; that a sponge plunged in water appears completely penetrated by it ; that bodies such as wool and especially air, admit of compression into a smaller space : and he concludes that "it is a general and essential property of all bodies to be impenetrable : and consequently the justness of this definition must be admitted, that a body is an *impenetrable extension*." Even now, to use Euler's own words, I should have thought that we had "made no great progress," but it is due to him to say that he was of a different mind ; for he

writes, "This property of all bodies, known by the term *impenetrability*, is, then, not only of the last importance relatively to every branch of human knowledge, but we may consider it as the master spring which Nature sets agoing in order to produce all her wonders."^{*}

This was written in the year 1760 : I think that Euler would scarcely have expressed himself in the same terms had he lived a century later ; at all events, I may say with confidence that an *impenetrable extension* is not a definition of *body* or of *matter*, and that it is impossible to evolve out of such a definition those properties of matter which observation and experiment, and reasoning, conducted sometimes with and sometimes without mathematical processes, have enabled inquirers to recognize and to prove.

The fact is that we can no more define *matter* than we can define the sun. The obvious definition of the sun, or description of him, is that he is a great light to "rule the day;" but very rough observation is sufficient to prove that he is the source of heat as well as light, and as the main origin of heat and light mankind in ruder ages would be content to regard him. Later on, however, it appeared that the sun possessed properties having no obvious connection with light and heat ; he was recognized as the centre of a system of bodies held together by mutual gravitation ; attractive force became as important in the conception of the sun as light and heat had been before. Later still the chemical action of the sun's rays has come into prominence in virtue of the art of photography ; and even now it is almost certain that we know the sun very imperfectly ; and it is quite possible, or perhaps probable, that future investigations will show that he produces results in the economy of nature of which at present we know nothing.

We may speak of matter in general much as I have just now spoken of the sun in particular. As science grows, larger views of its constitution and nature develop themselves. Early speculations on the subject were necessarily wild and arbitrary, and not apparently productive of real fruit ; but when the

* Vol. I. p. 209 (English translation, ed. 3).

truly scientific spirit developed itself the properties of matter revealed themselves one by one. Inertia was among the first, and served for a sound basis of dynamics. Next came the great truth of universal gravitation—a truth which has been so remarkably confirmed by all astronomical investigations, that it may perhaps now be regarded as indicating an essential property of matter as such. Then progress was made with regard to molecular constitution, and the law of the combination of material particles according to definite numerical proportions was added to previous discoveries. And so our knowledge of matter has grown, is growing, and doubtless will grow; there is no reason to suppose that the subject is yet exhausted: on the other hand, it is much more probable that our knowledge of matter and its properties is almost in its infancy; and though, on many grounds, I decline to pass the bounds of inductive reasoning, and to persuade myself that I can see in matter the potency of all terrestrial life, yet I am quite prepared to believe that the progress of legitimate investigation may, in the future, put in evidence properties as belonging to matter which, if enunciated now, might seem to be incredible.

The only property of matter with which I am concerned just now is its *indestructibility*.^{*} No property is more firmly established. Matter may be transformed in many ways, but cannot be destroyed. A lump of solid material may, by the application of heat, be made to assume a gaseous form, or a volume of gas may be compressed into a liquid, but the quantity of matter ever remains the same. It is even probable that each mass of matter consists of a

definite number of molecules, "unalterable by any of the processes which go on in the present state of things; and every individual of each species is of exactly the same magnitude as though they had all been cast in the same mould, like bullets, and not merely selected and grouped according to their size like small shot."[†]

Whatever be the molecular constitution of matter, its indestructibility must be allowed; and from this it follows that the whole quantity of matter in existence must be fixed and constant. The only refuge from this conclusion is that matter is either being produced or destroyed by some causation outside the limits of natural law; and this concession would answer my purpose in this essay quite as well as the contention that the quantity of matter in existence is fixed and constant. I shall assume, therefore, that the reader is with me in regard to this conclusion as to the fixed character of the quantity of matter.

To make the point more distinct let me put it in this way. The earth has a definite weight; so have the sun and moon and planets. We can express by a certain number of tons or pounds the weight of the solar system. The same can be done with respect to all the fixed stars, nebulae, and whatever else may exist in the universe, which may have a ponderable character. Thus the whole material universe, whatever its extent, may be regarded as equivalent in weight to a certain number of tons or pounds.

How many figures it would take to express this number it skills not to inquire; but that there is such a number, and that that number is and will be always the same unless changed by some cause outside the present course of nature, appears to be as certain as any truth can be.

But admitting this, we must further admit that there is some reason why this number should be what it is rather than any other. No result without a cause. Why is it not twice or three times as great? Why not less? There is certainly no power in matter itself to fix its own quantity: it is impossible to con-

* Bacon seems to have anticipated the result of more exact investigation concerning the indestructibility of matter, for he writes:

"In no transmutation of bodies is there any reduction, either from nothing or to nothing, but it belongs to the same Omnipotence to create something out of nothing as to turn something into nothing, and this never happens in the course of nature. Therefore the sum-total of matter remains always the same, without addition or diminution; but that this sum of matter is variously distributed among different bodies cannot be doubted."—Bacon's "Works," vol. 5, p. 339 (Ellis and Spedding).

† Maxwell's "Theory of Heat," p. 331.

ceive such a property as inherent in matter ; in fact, matter must first exist, and so its quantity be determined, before any property of any kind can possibly belong to it. Consequently the quantity of matter in existence must be determined by some *power*, some *will*, some *principle*, outside matter, and which itself is not matter. How shall we describe this power, will, or principle ? I conceive we may rightly give to it the name of *mind*.

It is difficult to exaggerate the importance of this conclusion. It is the *reductio ad absurdum* of materialism : if the quantity of matter be not constant, there must be some power of production different from all the powers of nature, which we may call, for the sake of distinction, a *creative* power ; and if the quantity of matter be constant, there must be some determination of that quantity by a cause outside matter, for it is manifestly absurd to suppose that a mass of matter can determine its own quantity.

I venture respectfully to call attention to this argument, and ask whether any flaw can be found in it ; and if so, what the flaw is. There is nothing abstruse in the reasoning : the premises are unquestioned ; the conclusion seems to follow inevitably. For my own part I have revolved the subject frequently and carefully, and have not been able to see where the argument fails.

It may, however, strengthen the argument, or at all events throw light upon it, if it is observed that the same course of reasoning is applicable to the principle which is known by mathematicians as that of the "Conservation of Energy." I must assume that the reader knows something about "energy" in its technical sense as the "capacity of doing work," and of its possible transformation into other forms ; and, assuming this, I will give the statement of the principle as I find it in Clerk Maxwell's little book on "Matter and Motion :"

The total energy of any material system is a quantity which can neither be increased nor diminished by any action between the parts of the system, though it may be transformed into any of the forms of which energy is susceptible.*

Assuming the truth of this principle, the reader, whether he is able thoroughly to grapple with the conception of energy or not, will perceive that there is a certain something which belongs to every material system, which is incapable of increase or diminution. Taking as the material system to which we direct our thoughts the entire material universe, it will appear that the whole amount of energy belonging to matter or to the material universe is an invariable quantity.

But when once we arrive at an invariable quantity connected with the whole material universe, the question must arise which has been already propounded with regard to the quantity of matter in existence, namely, this : By what cause or condition is that quantity determined ? The amount of energy cannot have determined itself ; and if self-determination be impossible, there must be some cause outside the material universe which has been the determining cause. Call it mind, or whatever you please, but a determining cause there must be ; and so we arrive at the old conclusion that matter cannot be everything.

The argument may be varied by applying it to the motion of the centre of the universe.

We have no knowledge whatever of the position or motion of the centre of the universe ; but no mathematical truth can be more certain than that a point exists whose position depends upon the configuration of all the masses of matter which constitute the universe, and which, nevertheless, is ever at rest, or moving uniformly in a straight line. An eccentric French mathematician, who seems to have had no better ground of comfort and hope, tells us that on losing a son he consoled himself by meditating upon the calm rest and peace of this central point.* That it is actually at rest is highly improbable ; we may therefore conclude that it is ever moving uniformly in a straight line. The direction and velocity of this central point are elements concerning which

* This must be admitted to be something like turning "cosmic emotion" into a religion ; though I confess that, without such proof, I, no less than Mr. F. Harrison, should have deemed the process impossible.

we may revert to the question—by what were they determined? They could not have determined themselves; consequently there must be some cause external to the material universe which has caused these two invariable things to be what they are. The invariable velocity represents an original velocity impressed upon each part of the system; or, if we prefer the hypothesis of rest, then this permanent rest equally represents an original adjustment of parts from which the original rest resulted. In either case, or in any case, the manner in which the centre of the system comports itself indicates a condition of motion which could not have been originated by matter itself.

It is probable that the argument which has been developed in the preceding paragraphs might be supported by other examples: it might even be said that all the familiar facts of nature which are commonly adduced, or which used to be adduced, in favor of the argument from design—as, for example, in Paley's "Natural Theology"—might be dealt with in the manner indicated in this essay. But the reader will perceive, and it is important that he should perceive, that my argument does not postulate design. I myself am a strong believer in the argument from design, and am persuaded that no doctrine of evolution can overturn it or even touch it: but, so far as this present essay is concerned, I can afford to give up the conception of design altogether: design or no design, purpose or no purpose, a mass of matter cannot determine its own quantity; the amount of energy which exists unchanged and unchangeable in a material system cannot determine its own amount; the straight line in which the centre of the system moves and the uniform velocity with which it moves cannot determine themselves: yet all these things *have* been determined somehow. Therefore they must have been determined by an agent which is outside the material system, or, in other words, which is not itself material. There may have been, so far as my argument is concerned, no good purpose, nor any purpose at all, in the determination; but it is absolutely impossible, so far as I can perceive, to avoid the conclusion that a determining cause

exists. I am disposed to call this result a demonstration from natural premises of the existence of the supernatural. The study of nature inclines the minds of some students to believe that there is nothing else to be studied and known except nature. Even mind is so connected in its ordinary manifestations with material agencies, that some have been bold enough to regard it as a function of matter, and as inconceivable apart from it. In fact, the tendency of much modern writing is in the direction of denying the supernatural—that is, anything beyond nature; but it would seem to be susceptible of distinct proof, from the ascertained properties of matter itself, that matter is not everything. I am not concerned with any philosophical speculations about matter, but I put matter itself into the witness-box, and it very candidly confesses that there is something above or beyond itself.

And thus we seem to establish upon the basis of scientific reasoning that belief concerning mind and matter which has been held by the most philosophic minds from Plato downward, namely, that mind is before matter, and that mind is the ruler of matter, and not *vice versa*. For it will be observed that, having once proved that there are certain things in the history and doings of matter which matter cannot decide for itself, it becomes arguable and even probable that matter may be much more dependent upon something which is not material, or which is supernatural, than some students of nature would be disposed to allow. It is easy to say that matter evolves itself according to certain laws, and that you want only matter and law in order to explain the whole visible universe; but if it be once proved and acknowledged that there is a power beyond matter to which matter is beholden for certain results, it becomes a question to what extent this obligation goes, and in how many respects matter may be helpless if left to itself. These laws of which we speak, who can say that they may not be imposed by some will outside? Nay, even the very existence of matter, who can say that it does not depend in like manner upon some exterior power or will? In fact, the discovery of any one

point in which the potency of matter demonstrably fails lets in the deluge.

I will now offer a few remarks on the subject of *motion*, which may tend to illustrate and confirm the conclusions to which we have already been led by the consideration of *matter*.

It is an accepted principle in science that every body, or particle, or mass of matter perseveres in its state of rest or of uniform motion in a straight line, except in so far as it is made to change that state by external forces. This is Newton's first law of motion; and if there is a law of which the truth is undoubted, it is this.

Now, conceive a mass of material particles all subject to this law, and also all gravitating toward each other according to the law which we know to be that of attraction. The question is, whether, with no other agency than that which we recognize as natural, the existing order of nature could have come into existence. If we can conceive of any original arrangement of the particles at all, it would seem that, excluding all consideration of an exterior cause, the arrangement would be that of uniform distribution: but with uniform distribution the tendency could be only to run into one lump; an irregular configuration, such as that which we actually witness in the heavens, would have been impossible. There, however, the irregular configuration is; and the configuration is constantly changing, and each condition of configuration is the result of that which preceded it: go back as far as you please, and you have still a state of things, a state of motion, which does not result from the normal laws by which matter is governed: you are compelled to postulate a cause of motion outside matter.

Here, again, it will be observed that I am not using the argument from design; I am not appealing to the beauty of the mechanism, and inferring the existence of a skilful workman, as might be done in the case of a locomotive engine or of a clock: I am only alleging that the actual motion which exists in the universe does not result from—though I will grant that it can be maintained by—the natural laws which govern matter and motion, and that therefore we are compelled to assume

some cause of motion outside matter. In other words, mind must have existed before motion, not motion before mind.

The manner in which thought is connected with material organs in living creatures is undoubtedly apt to suggest the opposite conclusion to that which I am advocating. The organ of thought in men may without inaccuracy be said to be the brain; and such facts as the connection of idiocy with an imperfect brain-formation, and the destruction of mental power by cerebral injury, favor the opinion that thought is as impossible without brain as sound is impossible without air: but it is manifestly illogical to conclude that thought, because in the case of material creatures like ourselves it is producible through the action of the brain, though we know not how, can only be so produced. And, in reality, to any one who thinks at all below the surface of things, it is more easy to conceive of thought as apart from matter, than to regard the two as uniformly and without any exception bound together: the difficulty is rather to believe that thought can ever result from a material organization than to conceive of matter and mind as existing separately. Man, a material creature, does think to very good purpose; there is no possibility of denying this familiar fact: but the mystery is how he does it.

The powers of mind and the forces which may be admitted to be essentially material are so different in kind, that it may be impossible to bring one into proper comparison with the other. Nevertheless, it will be useful to observe that the forces of nature are of a very subtle kind, and that the agents which are the most effective are generally the most impalpable. The roughest notion of force is that which is implied by the expressions *push* and *pull*. A billiard-ball has its direction of motion and its velocity changed by the impact of another ball: a bullet is projected from the barrel of a gun by the explosion of gunpowder, and the velocity acquired is diminished by the pressure of the air, and is finally destroyed by impact against a target. Friction, the tension of strings, the pressure of the hand or foot, and hundreds of other common causes, may be mentioned as

generators or destroyers of velocity. It was late in history that mankind discovered that the almost impalpable vapor of water could be made to do work more easily and more effectually than horses or water-power. Air had already been used for this purpose in the case of the windmill ; but I will confine my remarks to steam. And I observe that in passing from horse-power to steam-power we seem distinctly to have taken a step in the discovery that almost impalpable agents can produce greater results than those which are of a more palpable kind. St. James uses vapor as the symbol of all that is transitory and vain, and therefore compares it with human life : had he known what we know, he might have used the same comparison to indicate the incomparable power and energy of life when rightly applied to the doing of work, and not permitted to run to waste.

Steam, however, subtle as it is compared with more commonplace agents, still requires contact with the matter in which it is to generate velocity. It is an immense step from steam to gravitation. Here we have a force acting throughout the whole universe, requiring no contact, and only weakened according to a fixed rate, never destroyed, by distance. Nothing can be more certain than the existence of this force, and few things can be more mysterious. Newton, with that wonderful scientific caution which belonged to him, having demonstrated the law and, so far as was then possible, the universality of gravitation, refrained in his "Principia" from even speculating upon the cause, and only indulged in a few queries at the end of his treatise on "Optics." And no one since the time of the great master has been able to advance any farther : no one, at least, has been able to arrive at any conclusion which can be regarded as satisfactory.

Putting aside, however, all question of cause, we have it in evidence that every particle of matter has an influence upon every other particle in the universe ; that this influence depends not upon the specific qualities of the particle—that is to say, is not different for iron, wood, air, or what not—but depends solely upon the mass. More-

over, this force of gravitation, so far from needing contact, as in the case of air upon the sail of a windmill or steam upon the piston of an engine, is entirely unaffected by the interposition of any amount of matter : the effect of the sun, for example, upon a particle of the earth's surface immediately exposed to his influence is precisely the same, except so far as affected by distance, as it is upon a particle on the other side of the earth, which has a mass of matter eight thousand miles in thickness to shade it, if possible, from the sun's attraction, as it effectually does from his heat. The consideration of this fact, than which there is none more certain, will not only puzzle us as to what can be the cause, but will also lead to the conclusion that, whatever the cause may be, all space, whether occupied by matter or not, is pervaded by an influence which is a necessary concomitant of matter, though it cannot be described as itself material : this influence is the cause of weight, but is itself imponderable. The most perfect vacuum may in a true sense be said to be full of this influence.

Here, then, we have an agent so subtle and impalpable that it needs the utmost effort of genius to demonstrate its existence and its laws, and which yet is a cause of motion compared with which all the more obvious causes, all terrestrial pushes and pulls, are as dust in the balance. Reflection upon this conclusion may lead us to favor the belief that the invisible is more potential than the visible, and that perhaps the influences which are brought to bear upon material or natural things are powerful and effective just in proportion as they rise above matter and nature, or as they are immaterial and supernatural. It is not possible to speak very positively, and it is difficult to speak perspicuously, upon a subject of this kind ; but the reader may perhaps find in what I have said a "guess at truth," or at least a hint which may help him to guess for himself.

But we need not bound our speculation by conclusions based upon gravitation. There are other forces in nature which are more difficult of scientific treatment, and in some senses more powerful and more wonderful. I refer

to such forces as those of electricity and magnetism. Electricity appears, like light, to depend for its transmission upon a medium, concerning which "it is still extremely doubtful whether it is a gravitating substance, though it is certainly material, and has mass."^{*} Magnetism, like gravity, acts at a distance, and by means of no visible medium. You may place two magnets in *vacuo*, or "even place a solid plate of glass or metal or wood between the magnets, and still we find that their mutual action depends simply on their relative position, and is not perceptibly modified by placing any substance between them, unless that substance is one of the magnetic metals."[†] Whence we obtain a confirmation of the conclusion at which we have already arrived in favor of invisible impalpable agents as among the most potential in the material universe.

Here let me quote a few sentences from that interesting but difficult book, the "*Unseen Universe*." I think I may fairly claim this book as supporting the views propounded in this essay, though the actual argument and the conclusion drawn are not the same. "We do not hesitate," write the authors,[‡] "to assert that the visible universe cannot comprehend the whole works of God, because it had its beginning in time, and will also come to an end. Perhaps, indeed, it forms only an infinitesimal portion of that stupendous whole which is alone entitled to be called the universe." I quote this because it is an assertion of the existence of something besides matter based upon the existence of matter itself. But the following passage is still more to my purpose: "It is only within the last thirty or forty years that there has gradually dawned upon the minds of scientific men the conviction that there is something besides matter or stuff in the physical universe, which has at least as much claim as matter to recognition as an objective reality, though, of course, far less directly obvious to our senses as such, and therefore much later in being detected."[§] Reference is here

made to such agents as light, heat, electricity, etc.

These passages, and the whole tenor of the book which contains them, seem, as I have intimated, to point in the same direction as this essay; but, however that may be, my own design is to lead up from the seen to the unseen, from the palpable to the impalpable, from matter to mind. And although it may be asserted that we are not safe from materialism unless mind be regarded as belonging to so different a category of existence from matter that no conclusion can be drawn from one to the other, still I think it may help us to conceive of mind as existing altogether apart from matter if we observe that material powers and influences appear to be more powerful and influential as they become more subtle and more nearly immaterial. We may conceive, in fact, of a hierarchy of powers in which the lowest grade contains the commonest push - and - pull forces of ordinary human experience; higher grades may contain the invisible forces of nature; and the highest of all may contain pure mind, "unmixed with baser matter" altogether.

All this, however, must be regarded as speculative illustration of the general design of this essay. I claim to have proved by a simple demonstration, depending upon the recognized conclusions of physico-mathematical science, that there is some cause independent of and outside matter, by which certain conditions of matter, which might conceivably have been otherwise than they are, have been settled and determined. This cause, if independent of and outside matter, can only properly be described as mind. Therefore I claim to have proved that mind is before matter, not matter before mind; and it is plain that this proposition affords the basis of a theology, and that it altogether forbids atheism. I do not intend to pursue this thought; but I indicate it in order to show that the purpose which I have had in view has been most serious, and much higher than the mere selfish pleasure of indulging in ingenious speculation.

I will only further remark that it is probable that the line of argument followed in this essay may be applied in

* "*Matter and Motion*," p. 123.

[†] "*Ibid.*" p. 71.

[‡] "*Unseen Universe*," p. 66.

[§] "*Ibd.*" p. 70.

many other cases. For example, the absolute force of gravity is a quantity depending, so far as we know, upon no physical cause. There would seem to be no reason why the acceleration of a particle due to gravity at the earth's surface should be measured by 32.2, rather than by any other larger or smaller quantity. Or again, among the prettiest of theorems connected with planetary motion is that of the stability of the eccentricities of the planetary orbits, which assures us that, if the eccentricities are small at any epoch, they will forever remain small. It might be fairly argued that some cause outside matter must have determined the smallness of these eccentricities. In fact, there is a whole class of physical truths

concerning which it might be argued that they indicate a determining power outside the region of matter. But I have avoided all illustrations in which even a plausible argument might be raised against me, or in which it might be said that we did not know enough of the conditions of the question to come to any absolute conclusion; and I have restricted myself to two or three simple cases, in which the premises are quite certain and the cogency of the argument complete. I have done so all the more readily because I know that one sound argument is as good as a thousand, and that the addition of what is doubtful is apt to throw suspicion upon the best course of reasoning.—*The Nineteenth Century.*

FOUR MONTHS IN MOROCCO.

To the tourist who flees from the fogs of London in search of regions where the average duration of sunshine exceeds half an hour *per diem*, the choice of country and climate is often a matter for consideration. So it was with the writer of the present article, who, however, was fortunate in having the momentous question, "Where shall I go to?" decided for him by a timely suggestion from a friend to "try Morocco." There was an old-world flavor about his description of the place that was very much to my taste: so without more ado I packed up my traps, took a berth on board the first P. & O., and in six days found myself at Gibraltar. I will not attempt to describe the "Rock" and its well-known surroundings; its blue bay, and ever-varying hues of mountain, sea, and cloud; its wonderful galleries (not picture-galleries, or the repository of "old masters," as a friend of mine imagined them to be!)—but confine myself strictly to my subject, and make my way with all speed across the Straits to Tangier. Suffice it to say that, after four days, I had had enough of that uncomfortable fortress, where, every way the traveller turns, he finds a hill, and a different temperature at every corner of its stuffy streets. Accordingly, I availed myself of the first steamer advertised, and after a moderate passage

of some four hours through the choppy seas of the "Gut," found myself for the first time on the shores of Africa.

I can never forget my first sight of Tangier. The spectacle could hardly fail to strike the oldest traveller: it is doubly impressive when, as in my case, it forms one's first introduction to the manners and customs of the East. The transition is so complete from all that exists on the other side of the Straits, that one hardly realizes the proximity of Europe. You cross ten miles of sea, and find yourself, as it were, in a new world, where all the modes and conditions of life are changed; and here, in the year 1882, westward of Piccadilly, one can be transported in imagination to the far East of bygone centuries. Perhaps the impression conveyed by the utter novelty of the scene was best expressed by an American gentleman, who "guessed he felt as though he had been taken up by the scruff of the neck and set down in the Old Testament!" It is a common subject of remark how few people visit Morocco; and it is indeed difficult to conceive how this primitive simplicity can have been maintained so long within such easy reach of civilization. In Tangier there are no roads or vehicles—not a wheel to be found in the place—the only method of locomotion, besides your own legs, being by camel,

horse, donkey, or mule. Drainage, it need hardly be said, there is none, except in a few European houses; yet the place is healthy enough. Perhaps, after all, our modern system of sewage is a blunder! All their appliances are of the rudest description—the very ploughs with which they till the earth being of the same pattern as what Abraham must have used. Harrows do not exist; for it would be an unwarranted interference with the workings of nature not to leave the seed in the ground to shift for itself: so the Arab husbandman scratches the surface of the soil with his apology for a plough, throws in the seed, and lets it lie. "Allah will provide." If the elements are propitious, and there is a bounteous harvest—well. If, on the contrary, the crop should fail, and famine ensue, he will not complain, but bear his sufferings with the characteristic patience of his race. Why it should be in accordance with the laws of Kismet to use a plough, but not a harrow, it boots not to inquire, for fatalism seldom concerns itself with logic.

But to resume. Our steamer, on heaving to in the bay, was surrounded by the usual crowd of Arabs, gibbering and gesticulating for a fare; and the tourist who is new to it all, feels somewhat embarrassed. After awhile, one begins to perceive that the appalling energy a Moor throws into all he says is only his habitual method of conversing; and that, when you think he is threatening to cut your throat, he is probably only wishing you good-morning, or remarking on the fineness of the weather.

My baggage was put on the backs of various porters, and myself in a boat, and we were landed together at what at the time appeared to be the *embouchure* of the main drain. Once on shore, we were, of course, beset by fresh touts, beggars, porters, etc., gibbering at us like lunatics; and I could do nothing but stand still, and swear impartially at every one, till at last a fatherly old Arab, with a green cotton umbrella, and a slight smattering of English, introduced himself as the *commissionnaire* of M. Bruzeaud's hotel, and took me in tow. I was first conducted to the receipt of custom, where a number of

grave officials, sitting cross-legged in a row, took stock of my baggage, and passed the things one by one. This done, we left the port by a large gate, and after passing through an ill-paved, and worse-smelling alley, ascended the main street of the town. It was market-day, and we made our way with difficulty through the throng of women and slaves, Moors, negroes, Jews, and Europeans—the motley crowd of various nationalities which make up the population of Tangier. The extraordinary variety of types and shades of complexion, even among the indigenous population, cannot fail to impress the traveller first setting foot in the place. He sees pure-bred Moors, with fine-chiselled features, and skins as white as his own; olive-complexioned Arabs; half-casts of every shade; negroes from Timbuctoo and the Soudan; Riffians, from their mountain-fastnesses to the east of Tetuan, resembling North American Indians, with their shaven crowns and long scalp-locks, by which, it is said, Azrael, the Angel of Death, is to pull them up to heaven on the last day. These Riffians are a division of the old Berber race, the original inhabitants of Morocco, or who, at any rate, must be historically regarded as the aborigines of the country. They are a turbulent, warlike race, and have never been thoroughly subdued.

Arriving at the upper extremity of the town, we passed out into the *soko*, or market-place—a large open space filled with camels and other beasts of burden, muffled women waiting for their lords, and a buzzing crowd of country people, engaged in barter, or else lying idly about in picturesque groups. M. Bruzeaud's hotel, to which I was recommended, is built on rising ground, a few hundred yards outside the town, commanding a grand view over the bay, with its yellow fringe of sand, and the straits, bounded by Gibraltar and the purple hills of Spain.

As I arrived the sun was setting in a wondrous blaze of green and gold, the whole landscape being bathed in the glorious light. I began to fancy this was the average sort of Eastern sunset, and that we should be entertained in a similar manner every evening; but it was not so to be, for I have never seen

anything equal to it before or since. In the evening I took a stroll up to the *kasbah*, or fortress, which is built on an eminence encompassed by a high wall, and constitutes the upper section of the town. Here are the prisons, the palace of the Bashaw and his court of justice, a large mosque, the Treasury, and the principle fortifications. The latter are now provided with two 18-ton muzzle-loading Armstrongs, purchased from the British Government; and there are two similar pieces lying uselessly with their slides on some waste ground outside, awaiting the time when the Moorish authorities shall summon sufficient energy to mount them in the battery. I saw the captain of artillery—an intelligent young Moor—who had studied for two years at Chatham and Woolwich. He told me he had lately fired seven rounds from his new acquisitions, and that, strange to say, the adjoining buildings had not been shattered by the explosion. The prison, as usual in the East, was a loathsome dungeon. The door-keeper—a ruffianly-looking Moor—was lying asleep in a recess in the wall, but roused himself sufficiently at our approach to demand *back-sheesh*—which, I regret to say, I was weak enough to give. I was directed to look through a small grating, whence issued a noisome stench; while the sight that met my eyes was scarcely less revolting. The wretched inmates were seated huddled together in dirt and darkness, making baskets and mats, which they were very anxious to sell. I had purposedly brought some bread with me; and as I took a loaf from the basket they all crowded to the window, fighting like demons for the first place—their pinched faces and eyes glaring with hunger, telling all too plain a tale of starvation and ill-treatment—as they struggled to obtain the food. No wonder! for they are almost entirely dependent on such charities for sustenance; and they have to drink the filthiest water, collected in goatskins, from any puddles that may be nearest at hand. Here they will remain till such time as it pleases the merciful consideration of "Government" to release them; or, more hopeful still, if by their own exertions, or by the charity of friends, they can manage to

"square" the Bashaw, who in that case will speedily procure their release. That official's salary not exceeding £2 a-month, it is not surprising that he finds it expedient to supplement his income in other ways.

Justice can hardly be said to exist in Morocco. Of two litigants, he who has the longest purse prevails; and while petty pilferers are sent by gangs in chains to Fez, whence it is not probable they will ever return or survive the starvation and ill-treatment, murderers who have the means can buy impunity at a very moderate cost. The Court of Justice was sitting, and I had frequent opportunities of observing it afterward. The procedure, to any one fresh from the Old Bailey, appears a little strange. The Bashaw reclines on a comfortable couch listening to the witnesses, who give their evidence with great energy and volubility. Sometimes in the middle of it all the prisoner will jump up and exclaim that he can get a witness on his behalf. He will then run out of court, unattended by guard or policeman, and presently return with his man. No one expresses any surprise at this performance, and it never seems to enter their heads that he should avail himself of the opportunity to escape. The usual punishments, besides fine and imprisonment, are mutilation, by cutting off a hand or foot—the stump being plunged in boiling pitch to stop the bleeding—bastinadoing, and putting out the eyes. There used to be a blind beggar constantly demanding *back-sheesh* at one of the gates, who had been a noted robber in his day; but falling at last into the hands of his pursuers had suffered this horrible penalty. There were at least two murders during my stay at Tangier—both perpetrated in the most open manner, though in neither case was any adequate penalty (if any penalty at all) inflicted. The first was from motives of jealousy, and the murderer stabbed his victim in the middle of the town—the body lying out in the street till a guide from the hotel stumbled over it on his way home at night. The second was committed by a Riffian, to wipe out a blood feud that existed in his family. A relation of his had been killed by a man, and from that time the solemn duty devolv-

ed upon him of avenging his death. The act may have been committed a generation back ; but in that case the mother would daily charge the child upon her knee with the task he had to perform, and when he was grown up, never let him rest till vengeance was exacted. The man has little hope of escape. No Irish agent or landlord under the ban of "Captain Moonlight" could be so certain of his doom ; and in Barbary he cannot even avail himself of the doubtful protection of the police. In this case the murderer coolly shot his victim dead as he was sitting in the *soko*, and then brandishing his knife at all who attempted to arrest him, got clear off into the country. A friend of mine once heard the Bashaw inflict a fine of eighteenpence on a Moor for the peculiarly cold-blooded murder of a Jew—that impartial functionary observing that the sentence would have been a heavier one, but that it was necessary that Jews should be discouraged !

Tangier, as may be supposed, is full of bazaars, where the tourist may buy embroidery and curios from the interior at almost any price he chooses to give. Those who pay what they are asked will lighten their purses in a marvellously short time ; but by a little judicious haggling, things may be got at a very moderate rate. There are two principal shops—one kept by a Jew, the other managed by a Moor ; and the keenest rivalry subsists between them. They were never tired of heaping abuse and contumely on each other's heads, accompanied by expressions of the most unbounded contempt. "But," exclaimed the Moor one day, speaking of his brethren in the trade, "they are mere flies !" "Besides," he said to me afterward, with a magnificent gesture of mingled pity and scorn, "I have only to tell the Christians that we Moors did not crucify Christ, and they will all come to my shop." A subordination of mercantile to religious considerations, that, I fear, the worthy Hadj would have found as rare in Christendom as it certainly is in the mutual dealings of Mohammedans.

There is always something new or striking to see in Tangier. From the windows of the hotel we could see all that went on in the *soko*, as well as the

country people coming and going with their caravans from the interior. There is a large Arab cemetery hard by, where one has frequent opportunities of witnessing their funerals. The body is borne on a bier, followed by a long train of mourners chanting a slow plaintive dirge, unquestionably the most agreeable music one hears in this country, where the art is still in its infancy. The Mohammedan law enjoins burial before sundown on the day of decease ; and the grave being ready dug, the corpse is placed in it in a sitting posture with the face toward Mecca, ready to spring up at the sound of the last trumpet. Should he be a Riffian, and possessed of a reliable scalp-lock, he will be saved the trouble, as Azrael will pull him up in the way already mentioned. Perhaps, however, the most interesting ceremony is a Moorish wedding. Walking with a friend one day, we noticed a procession winding along the sands of the bay, so we descended the road leading by the southern wall to the beach to observe what was going on. A Tangierine was taking unto himself a bride from the country, and had sent out to fetch her in with due honors. An advanced-guard of Riff warriors, armed with long Moorish guns and picturesquely clad in embroidered garments, led the way. Immediately behind came the lady's dowry—a rather seedy-looking mule, who carried on his back the bridal *trousseau*, consisting of an old mattress and some bed-linen ! Next followed the bride herself, cooped up in a kind of ornamented box borne on the back of a donkey, and supported by her kinsmen, dressed in short *gelabs* decked out in various colors. A great band of pipes and tom-toms, the national music of Morocco, brought up the rear, making a fearful din. On reaching the outskirts of the *soko* the procession and music stopped, and the Rifians, forming in order, executed a sort of warlike quadrille, during which they frequently leapt up in the air with wild shouts and fired their guns with a curious back action into the ground. A juggler next came forward and performed several tricks with his gun, flinging it up in the air and catching it, and firing it while spinning round like a teetotum. The

party then retired in silence to pray at the shrine of a saint hard by, and the ceremony was over. A Jewish wedding is a very different affair. I was enabled to witness two of them—at least part of the proceedings; for to have attended throughout all the formalities would have been a trifle wearisome, as I believe they last a fortnight. I was taken to the house with some friends, and after making our way with difficulty through the hall and up the stairs, which were thronged with riff-raff of the Hebrew persuasion, we were shown into an upper room. Here the bride was seated motionless on a dais or throne, magnificently dressed, with her eyes closed as if in sleep, and showing no more signs of animation than a statue. The room was filled with female friends and relations, gorgeously arrayed, and showing a very evident desire to captivate the onlookers. The bride's mother took a candle, and holding it so close that I feared she would burn the tip of the young lady's nose, showed us her daughter with all a mother's pride. The girl never blinked or moved a muscle of her face, her heavy breathing alone betokening that she was alive. The next wedding I saw was on a larger scale, but the main features were the same. The bride was seated as before, and there was the same amount of bulky female magnificence visible, though I looked in vain for any of those voluptuous charms for which the Tangier Jewesses are renowned. After considerable delay the Rabbi, an infirm, palsied old gentleman, was brought upstairs and commenced reading a long document, which I supposed was the marriage-service. He next took the ring and placed it on the bride's finger, at which she gave very decided proof of being alive by uttering a piercing shriek. She was then led round the room with her eyes still closed, and the company soon after retired to supper, at which I was told the poor bride would not be allowed to open her eyes or taste anything but a little water. There are various other curious details connected with the marriage ceremony among the Jews in Morocco which cannot be given here. In the evenings they make much merriment; and from the hotel I could often hear the *taghareet*—peculiar, shrill,

wailing cry, uttered by the elder women both among Jews and Moors on these occasions.

There is nothing the Moor loves more than burning powder; and they gratify their childish delight in firing off their guns on every possible occasion. My first sight of the *Laab al Barode*, or Powder Play, was at the christening of the Bashaw's son, which ceremony in the Mohammedan religion does not take place till the child is some ten or twelve years of age. It was on a Sunday afternoon, and as there had been a great procession about mid-day, with music and banners and finery, we strolled up to the *kasbah* to see what was happening. Here, in an open space outside the prison, we found a crowd of soldiers collected, with a heifer led by a cord in their midst preparatory to being sacrificed. There was continuous dancing and jugglery, and a din of gun-firing and music that lasted for several hours. Enough powder must have been burned to stock a magazine as they never measure the charge, but simply pour a handful down the barrel and discharge it with the most utter recklessness. Accidents are not unfrequently the result, either from guns bursting or otherwise. The next day the ceremony was continued in the *soko*, the whole place being crowded with foot and horse soldiery and spectators. Knots of Riff warriors in their wild attire, with turbans formed by twisting their red cloth gun covers round their heads, were dotted about, and added to the picturesqueness of the scene. The infant in whose honor it all was, clad in splendid green and gold raiment, sat in the midst on a gorgeously caparisoned horse and looked serenely on. A course was cleared among the mob of onlookers, and ten or twelve horsemen forming in line galloped forward at full speed, and raising their guns in one hand over their heads, discharged them simultaneously. This was repeated several times; in fact, the performance lasted the greater part of the afternoon. Not long after this the great festival of the Aissaouias took place, which I regret to say, being absent on a shooting expedition, I failed to witness. The Aissaouias are a sect of fanatics resembling the dancing dervishes of Turkey in

some respects, but deriving their origin from the sacred city of Mequinez in Morocco, whence they have spread all over the East. I was told that the town and *soko* were filled with them, and that in the transports of their fanaticism they gashed themselves with knives and stones, while they imitated wild beasts of various kinds, howling and grovelling on the ground. Europeans should be careful on these occasions if they go out at all, at any rate not to approach too near to the processions, or get under the sacred banners, as there is no knowing what mischief the fanatics may do in their delirious frenzy.

Festivals of different kinds are of such frequent occurrence at Tangier, that it is difficult for a stranger to know what they are all about. Looking out one Friday morning, I saw what appeared to be a kind of children's *fête*—the women all wearing embroidery, and the children most prettily dressed. In the *soko* were a number of merry-go-rounds and curious swings revolving on pivots, on which the youth of Tangier appeared to be trying to break their necks, though without success as far as I am aware. But far the most remarkable incident of the day's proceedings was a great outbreak of "Judenhetz" on the part of the dervish population. During certain hours of this particular day, it seems, Jews were interdicted by custom from appearing in the market-place. Directly any unfortunate Israelite showed himself outside the walls, the mob raised a yell and went for him with brickbats and paving-stones ; so that we were gratified by the frequent spectacle, more amusing to us that the victims, of a Jew dodging in and out among the booths erected at the side of the *soko*, and screening himself as best he might from the shower of missiles. Occasionally, if very hard pressed, he would ensconce himself inside one of these booths, and his temporary fortress would then be bombarded till he was forced to brave the shower and flee to the next place of shelter. I am not aware that any one was killed, though I saw several Jews with terrible wounds on their heads and the blood streaming from them.

Like many other people, I had come

out to Tangier with certain preconceived notions with regard to the country and climate, which subsequent acquaintance with the place was destined to dispel. I expected to find myself, if not exactly in an arid desert, at least in a sandy and comparatively barren country, and to be exposed to the rays of a scorching sun. It was an agreeable surprise, therefore, on making excursions inland, to see a fine alluvial soil, yielding rich and abundant crops, and capable of high cultivation, while the climate is far from being unpleasantly warm. In fact, the extraordinary prevalence of the Levanté, or east wind, causes it to be extremely trying to people with weak chests. To show the degree of cold which is experienced sometimes, I may mention that once, while camping out on low ground, within less than a mile of the sea, our servant early one morning brought a good sized lump of ice into the tent. During the earlier part of my sojourn at Tangier I made several short shooting expeditions into the country. My first experience of camp-life in Morocco was not altogether favorable. It was on a trip with a friend to the lakes of Sharf-al-Akab, some fifteen miles distant from Tangier, where we were told excellent snipe-shooting was to be obtained. The weather was all that could be desired for two days ; but on the last evening the sky was lowering, and a watery sunset betokened a change. To describe what befell, I extract a leaf from my diary, and let the inexperienced in camping out take a warning therefrom to slacken their tent-ropes at the approach of bad weather.

" 1 A.M.—Light rain outside ; went to sleep again.
 3 A.M.—Tremendous downpour, of "real Morocco" quality. 4.5.—Woke P—, and asked him to go and dig a trench outside to catch the water, which he very unreasonably refused to do. 4.30.—Water coming through. 4.45.—More water in. 5 A.M.—Sides of tent approaching ; felt wet canvas against my left ear. 5.10.—Utter collapse ; pole fell over the beds, and both buried under the soaking canvas." After half an hour's struggle with the tent-pole, and searching for clothes and valuables, we crawled out in our night-shirts into the rain. We always took a

bottle of "Eno" with us (I trust that indefatigable advertiser will not seize upon this as a puff !) and in the confusion the cork came out, and the contents fizzled in the slush. The intense alarm of the Moors, who evidently expected an explosion, was most comical to behold. We learned afterward that the rainfall was half an inch, but at half-past seven it began to clear ; so, after getting some breakfast in our sopping clothes, we shot for the rest of the day, and rode back to Tangier in the evening, having bagged in two and a half days' shooting $8\frac{1}{2}$ brace of snipe, with a few extras. The shooting in Morocco is excellent, the game comprising snipe—which, as the Irishman said, are "mostly jostling thereabouts"—hares, rabbits, quail (at certain seasons), duck of all kinds, partridges, and wild boar. There are also jackals in considerable numbers, and in the interior hyænas are sometimes met with.

The sport, *par excellence*, however, of the country is pig-sticking, for which expeditions are periodically organized by Sir John Drummond Hay, the British Minister to the Court of Morocco ; and owing to his kindness and hospitality, I was enabled to see a good deal of this pastime. The other method of boar-hunting is by the *battue* system, the guns being posted in front, and the game driven up to them. This, if not equal to pig-sticking, is likewise excellent fun—the shrieking and uproar of the beaters, accompanied by the barking of dogs, the braying of horns, and the discharge of guns, rendering it very exciting. The curses and imprecations, mingled with the most biting sarcasms, that are showered on the unfortunate animals, are enough to oust the most stubborn boar from his lair. An Arab oath is a very elaborate affair, being sustained through a number of parentheses and subordinate phrases to an indefinite length. "May Allah burn the ashes of your great-grandfather, who was the miserable offspring of a brother and sister," etc., etc., may serve as an example. They imagine the unclean animal to be the abode of *jins*, or evil spirits, and maintain sometimes a running conversation with him, every word of which he is supposed to understand. There is a curious ceremony connected

with the sport, to which all successful novices are subjected. After killing my first pig the chief hunter came up and took away my gun, and a ring being formed the piece was put up to auction. After it has been bidden for awhile you have to buy it in yourself at a certain price, say four or five dollars. It is a way of paying the beaters, who otherwise contribute their services for nothing. Boar-hunting has its disadvantages, for it is unquestionably a dangerous amusement. There are perils of the pig, which, if wounded, will turn and rend you ; perils of the gentleman, who will ride with his lance in rest instead of carrying the point in the air, or of the no less objectionable individual who shifts from his post and fires wildly down the line ; of the ambushed Moor, who shoots impartially in any direction ; while, unless you are well mounted you have a very tolerable chance of breaking your neck. One accident occurred as follows. While posted one day waiting for boar, we heard a more than usual commotion among the beaters, which lasted for some time, till at length a huge gray old tusker broke cover, and came across the intervening space up to my left-hand neighbor. He fired and wounded the beast, which immediately charged ; and whether he fell or was knocked over, I never could make out, but the next thing I saw was my friend sprawling on the ground, and the boar jumping clean over him. Several people rushed up to the rescue, and blazed away promiscuously, so that, though no one was injured by the pig, I was more shocked than surprised to find that one gentleman had received a slug in the arm. Fourteen shots were fired at poor piggy, which made off notwithstanding, and was seen crossing a river by one of the Moors, who, in their familiar language of hyperbole, described him as descending the hill "quarrelling with himself, and with a large tree on each tusk !" He added, that though his gun was loaded the charge had been there since a very uncertain date, and it contained what he called a "running bullet," so that he thought it prudent not to fire.

Coursing is another amusement much in vogue, though their method of pursuing it is not strictly suggestive of

meetings at Plumpton or the Waterloo Cup. About fifty beaters walk along in a row with a very mixed pack of hounds, consisting of all the curs from the neighboring villages, interspersed here and there with a few real greyhounds. When the hare is started, you gallop after it on horseback, though, owing to the crowd of men and dogs, the poor beast is so bewildered as a rule, that it is soon captured. The Moors take the keenest interest in this as in all other sport—the love of the chase being quite a national characteristic. While we were shooting in the country they would troop out of the villages to come and beat for us, their well-meant exertions being at times a great nuisance. In the remoter districts, where they seldom or never see a European sportsman, their delight at seeing a bird killed on the wing is unbounded, that being a feat they never attempt with their own clumsy weapons.

During the first two months of my stay at Tangier, I did not extend my excursions to any distance into the country, with the exception of a week's camping in the hilly district of Andjirâ, which lies to the east of Tangier in the direction of Ceuta. In January, however, four of us arranged an expedition to Larache, a seaport town some seventy miles to the south-west, where we were told that game, especially partridges, in fabulous quantities was to be found. We determined to dispense with the services of guides and dragomen, and arranged everything for ourselves. To that large majority of people to whom expense is a consideration, I can recommend this place as being by far the most economical. We spent several busy days in hiring horses, baggage-animals, and servants, and getting together our tents, utensils, and other camp requisites. Our retinue consisted of a cook named Salam, a tall good-natured fellow, only moderately proficient in his art, but rather inclined to be honest as far as is possible in an oriental; a stolid individual rejoicing in the name of Almarackslai, who acted as escort and general help; and lastly, Jona, the servant, a most comical bandy-legged creature, and a sad rogue, but always wearing an expression of the most intense injured innocence. The

"escort" is always a necessity in Morocco, though to rely on him for purposes of defence would indeed be depending on a broken reed. His chief use appears to be, that in case any one is robbed, or if your throat is cut, you may have the satisfaction of knowing that the Moorish Government is responsible.

After the inevitable squabbling and palavering, without which no oriental can perform the smallest operation, we affected a start at 8 A.M. on the 24th of January, our course being along the broad and well-defined track which constitutes the high-road to Fez. The road for the first few hours lay through a comparatively flat country, nearly destitute of trees, but the greater part cultivated and giving promise of a good crop. Morocco was once densely wooded, but the forests have been almost entirely cut down for charcoal—the thrifless Moor taking no pains to preserve the timber or plant fresh trees. Here and there a grove of olives remaining untouched marked the tomb of a saint, where religious scruple preserved the trees from destruction. Four or five hours from Tangier we entered a wilder country, studded with low bushes and palm scrub, and began to climb a steep hill by a rough and stony path that rendered our progress very slow. We soon quitted the Fez road for another branching off to the right, which conducted us to our first halting place, Lahabeah—a collection of a few wattled huts within an enclosure of cactus, politely called a village. Here we passed the night, after some fearful haggling as to the price of provisions and corn, the Moors evidently thinking that they ought to make the most out of such rare birds of passage. We resumed our journey early next morning, so as, if possible, to arrive at our destination the same day.

As we neared Larache, the country became more hilly and variegated, and we passed through some beautiful woods with a rich undergrowth of mosses, ferns, and flowering creepers. Our mules kept up a steady four miles an hour, so that at five o'clock we pitched the tents in the village of El Hamiss, a breezy spot about six miles from Larache. Our camp was on a common

near the edge of a high table-land, from which the ground descended, precipitously at first, then in a gradual slope for three miles, to the shore of the Atlantic. The natives brought provisions for sale to our tents, and the same process of bargaining was gone through as on the previous day. It was necessary to be on the *qui vive*, as they were up to all sorts of dodges. We detected one fellow covering up a quantity of bad butter in a jar with a layer of good, and exposed him with ignominy. It requires a certain amount of time to teach a Moor that, according to European notions, butter does not, like wine, improve with keeping, and that the comparative insipidity of the article when fresh is preferable to the strong rancid flavor which suits their palates. I must confess the prices were not what most people would consider exorbitant : eggs, 3d. or 4d. a dozen ; the like price for a pound of butter ; chickens, 6d. apiece ; and a *moudh* of corn (about 50 lb.) costing less than three shillings. The day after our arrival we divided into two parties, and went out prospecting. The partridges were not in such multitudes as to darken the air with their wings in the way we had been led to expect, but there were quite enough to give us very fair sport. During our absence we had sent Jona into Larache to market for us ; and not being satisfied with the account he gave us of his purchases, we interrogated him strictly. Being asked to swear to the truth of his assertions, he replied, "*Por Dios, señor—por Dios,*" which he repeated over and over again ; but nothing would induce him to swear by Allah, and so perjure himself with the name of God to his own tongue ! His face, however, during the cross-examination, was too much for us, and made it impossible to maintain the judicial gravity which would have beffitted the proceedings. The following morning we mounted our horses and rode off to Larache. The town is an unhealthy fever-stricken spot on some rising ground at the mouth of a big river, and surrounded by extensive marshes. We left our horses on the river-bank, and were ferried across into the town, where we strolled through some of the principal streets and into the *soko*, which, un-

like Tangier, is inside the walls. From here a narrow road conducted us to the southern gate, by which, after passing an old moat at the foot of a lofty wall, we emerged into the open country. The fortifications were built by the Portuguese, and are said to be in imitation of the side of a line-of-battle ship, though for my part I never could trace the resemblance. Before leaving we made a number of purchases, and started home with a fresh stock of provisions and 50 lb. of corn, which was rolled up in the soldier's *gelab*, and placed on my horse, half of it being lost on the homeward journey through the bursting of the cloth. During dinner the same evening we heard a great commotion in the village, and on looking out saw one of the adjoining Moorish houses on fire, every one standing round and screeching, but not a soul making the slightest effort at extinguishing the flames. We all ran out and assisted in the rescue of effects (consisting chiefly of a few old pots and stools), from the burning mansion. It was warm work ; and while endeavoring to drag out a lot of bamboo canes which they were anxious to save, we noticed that all the thatch-roof over our heads was in a blaze. We just had time to bolt out when the whole affair fell in with a crash, giving us a rather narrow escape. The owner bore his loss with characteristic equanimity, accepting it as the decree of fate ; that strange fatalism of theirs, which is the fatal bar to all progress, teaching them, by way of compensation, at least to endure misfortune.

A few days after we joined in a boar-hunt, which had been organized in some adjoining hills. It was the day of the Aissaouia festival, and we heard a great din of music and gun-firing at three o'clock in the morning. It had been settled that the sheikh of the village should be ready for us with the hunters and dogs at 9 A.M.—a rather futile kind of arrangement in a country where time is not regulated by clock or watch. After waiting an hour and a half we sent up to inquire when they were likely to put in an appearance. The messenger returned to say that the sheikh was engaged at his devotions, but that he had nearly done, and then, after he had had his breakfast, he would be very

much at our service. There was nothing for it but to wait ; and at length, some hours after the appointed time, we made a start. The first few beats were in a wild hilly country covered with dense bushes. As the day wore on we were joined by numbers of hunters from the villages round about, all armed with their long guns, the consequence being, that while waiting for the boar we were surrounded by these fellows all standing with their guns "at the ready" in attitudes of the most intense expectation. If the boar appeared at a safe distance they blazed away at him anywhere, and for a while we seemed to carry our lives in our hands ; only if he came their way they all fled in the direst terror without firing a shot. They never touched the pig by any chance, but simply jeopardized their neighbors ; so that next time we stipulated that no native sportsmen should be allowed, or at least that they should be kept under proper control. The best of it was, that when we came to the payment of the beaters, the uninvited gentlemen with the guns claimed their share of remuneration for their kindness in having endangered our lives and spoiled our sport. Needless to say, they did not get much.

After we had been encamped nearly a week, we were fortunate in making the acquaintance of a Moor in the village, named Berghel, who supplied us with all necessaries. He was a most charming old fellow, quite one of Nature's gentlemen, and was reported to be extremely rich. His mode of life did not indicate great wealth, but in Morocco any such display would be the height of imprudence. The rapacious governors have a keen scent for such prey, and directly any one is suspected of hoarding riches, they are not long in finding an excuse for relieving him of them. There can be little doubt that much treasure lies concealed in the ground throughout Morocco, the owners having buried it and kept the secret till they died. One afternoon he invited us to his domain in the village, where, after spending some hours in a superb orange-grove, he conducted us to take tea at his house.

Before entering we all took off our Moorish slippers, after the fashion of the

country, and leaving them in the porch, walked inside in our stockings. The interior of the house was quite plain, but extremely comfortable. Tea was served with bread and butter in the usual Moorish manner—the teapot being almost filled with sugar, and a small quantity of tea being added, it was then filled with water. As the beverage was concocting, he put in a few leaves of highly scented freshly gathered verbena, the result being a pale syrupy compound, tasting strongly of the verbena ; but the flavor of tea was hardly perceptible. However, we managed to swallow it, and a brazier of incense was then passed round till the room was filled with its sickly fumes. We became great friends after this visit, and he used to sit for half an hour in our tent every evening when he brought us our supplies. He never asked for payment at the time, but let us keep the accounts, naively remarking that "we had eaten bread in his house, and he was sure we should not swindle him." Talking of accounts, it became a rather serious matter keeping them in the coin of the country, which consists entirely of copper, and is of very little value. Two of these copper coins (containing nearly as much copper as twopence) make a blanquillo, 4 blanquillos = 1 onza, and 4 onzas = 1 (Spanish) Real de Vellon, about twopence-halfpenny. You may carry sixpennyworth of this money with tolerable ease, but when it comes to pounds, the services of a donkey are required ; while to reduce some thousands of blanquillos to pounds, shillings, and pence is no joke.

Our guns supplied us with animal food, so that we never had occasion to purchase meat. The only drawback to this was that the Moors refused to eat game killed by Christians. In the Mohammedan religion the slaughter of any animal is regarded as a sacrifice to Allah. Therefore, if this sacrifice is performed by an infidel the flesh is unclean. The only way out of the difficulty is to cut the throat of everything you shoot that is not intended for your own consumption. Accordingly, I always took a knife with me, and directly I shot a partridge, ran up and cut its throat, till I found that this was no use, as the bird, being killed by me, was

still unclean, so that we had to employ a Moor for the purpose. Some Moors are not so scrupulous, and will eat wild boar ; but most of them are careful to avoid it. I used sometimes to give them any piece of meat that might remain over from luncheon, and after they had eaten it, tell them jokingly that it was *haloof* (boar), when their faces would assume a most serious expression.

One morning, hearing a great commotion outside the tent, we found a woman and her daughter being led along forcibly by several men. The woman was gesticulating violently, and evidently using the choicest Arabic Billingsgate she could command. I never heard such fearful scolding, the lady's eyes flashing, and her whole body trembling with passion. It appeared that, not agreeing with her spouse, she had fled from the conjugal abode, and a soldier had been despatched to restore her to her lord. The latter stood by smiling, in no way disturbed by the fierce invective launched at him by the virago. He was probably quite used to it at home.

After we had remained nearly three weeks, and the game began to show decided signs of diminishing, we thought it time to make tracks homeward. We had had a most delightful trip, and as good sport as anybody could desire, having bagged between five and six hundred head. The weather was perfect throughout ; and I never experienced such a delightful climate, being milder and more equable than that at Tangier, and free from the incessant east wind. We managed to procure some baggage-animals (very sorry creatures they were); and after spending half the morning in squabbling as to the number of mules required, the route we should take, and various other trifles, we at last effected a start. We travelled this time by way of Arzeilah, a small town on the coast. Our old friend accompanied us a short distance from the village, where we all bade him a fond farewell. Before we had covered a mile on our journey, one of the mules came to grief—which, indeed, occurred every half-hour throughout the remainder of the day. Directly one beast was down, and all hands occupied in setting him on his legs, another would

think it a favorable opportunity for obtaining a little repose, and promptly lie down also, when the same operation had to be repeated over again. This retarded our progress to such an extent that darkness overtook us some six miles from Arzeilah, where we purposed spending the night. Near the outskirts of the town we entered a gloomy lane, with a high bank on either side topped with trees, pitch-dark, and very boggy at the bottom. Here a mule came down in the mud, and the greatest confusion ensued. The Moors all began to swear and to weep, saying it was hopeless trying to get on, and almost refused to work. However, we bullied them on, and by striking lucifer-matches, managed to throw a little light upon the scene, and so get the mule unloaded. Part of the cargo was put on the backs of the men ; and in that way we arrived under the walls of Arzeilah—an old Portuguese fortress, whose half-ruined battlements stood out in picturesque relief against the starlit sky. The gates were locked, and not a soul stirring ; so we made our servants, sorely against their will, move on in search of a place to encamp. We soon came on what looked a tolerably open spot, and ordered them to pitch the tents. At this they all broke out afresh, cursing each other and ourselves, and gibbering like madmen, and for awhile nothing could be done. When they had quieted down a little, we discovered the cause of all this commotion. The place was a Mohammedan graveyard, and we were desecrating the tombs of the dead. However, there was no help for it, as it was nearly pitch-dark, the grass reeking with dew, and one of our party seriously unwell ; so by dint of great exertions, and doing half the work ourselves, we got the tents fixed for the night. There was a tombstone under my bed, but no ghost disturbed my slumbers. The Mohammedans say that the souls of the departed are disturbed if a Christian walks over their graves, and one should be careful to avoid doing so. What dire commotion there must have been among the souls of the defunct faithful, with four infidels sleeping above their last resting-place, I hardly like to imagine. We were truly sorry to thus offend the scruples of our

servants ; but under the circumstances we could not have done otherwise. The muleteers told us we should have to be up betimes next morning, as a tidal river had to be crossed, and we should be unable to ford it later than 3 A.M. Accordingly, I turned in for a few hours in my clothes, and at two o'clock rose and went over to our servants' tent. I found them all curled up in their *gelabs*, and snoring loud enough to wake the dead at their feet. It required several good hard kicks to rouse them, when they sat up and rubbed their eyes, swore they had been awake all the time, and were just coming to call me ! I said it was time to start ; whereupon they all began to make excuses, saying it was too late, the beasts weren't fed, and we should certainly break down on the way. This was unanswerable : so I went back to bed. We did not get off till nearly two o'clock the next afternoon, and arrived at Tangier the evening of the following day, after an absence of more than three weeks.

My next trip was to Tetuan. I was unwilling to quit Morocco without visiting this interesting place, and the result proved it to be well worth the trouble. My friends having left for Italy, I procured the services of an escort—a fine-looking barbarian—and a baggage-mule, and started off alone. The distance is about forty-five miles, which we accomplished in eleven hours, including the customary halt for an hour at mid-day. We passed several heaps of stones, or murder-cairns, by the wayside, marking the spot where some poor wretch had been sent to his last account ; and pious wayfarers should never omit to add their stone to the pile. Our stopping-place was at the *fondak* or *caravanserai*, a square stone building erected for the accommodation of travellers near the top of a wild mountain-pass. Here we regaled ourselves with Moorish coffee and such provisions as we had brought with us. From the summit of the pass there is a grand view of Tetuan with its white-roofed houses glistening in the sun, and the blue Mediterranean beyond. The town is magnificently situated in a valley watered by the Wâd Martin which, unlike the generality of Morocco rivers, always has some water in its channel. To the east, a plain

some five miles wide extends to the sea-shore ; while in front the hills of the wild Riff country rise to a height of 3000 feet, backed by the loftier spurs of the Northern Atlas range. The lower slopes of the hills are dotted with numerous white Moorish villas, and covered with luxuriant orange-groves. Outside the western gate I found two friends encamped, and spent the evening in their tents. As the environs of the town were said to be infested by Riffian bandits and marauders, and the gates were closed at sundown, it became necessary to obtain permission to stay out after dark. At nine o'clock, however, just as I was settling down for a smoke in a very comfortable chair, a letter arrived from the Bashaw to say the *caballero* (myself) was to come in at once. There was nothing to be done but to obey, and on going outside the tent I found an imposing guard of Riff soldiers waiting for me who encompassed me about and conducted me to the town. On reaching the gate they all halted and grounded arms, while I marched through their midst into the street with my sense of self-importance immeasurably increased ! Not that I ever imagined it was done out of any personal regard, but simply from a fear that if anything happens to an Englishman, there is likely to be a fuss and inquiry, and trouble will come of it. It is very desirable that this wholesome feeling of respect should be preserved among orientals, wherever Europeans come in contact with them.

Tetuan resembles Tangier in many respects, but it is larger and more interesting as a type of the ideal Eastern city, and remaining, if possible, in a more fossilized condition. The streets are dirtier and worse paved, while the comparative absence of the European element in the population lends it a more primitive air. A considerable part of the town is in ruins from the bombardment of 1859, when the Spaniards under Marshall O'Donnell captured and took possession of the place. It is remarkable for the number of its mosques, some of which are of great size and beauty—though here, as elsewhere in Morocco, no Christian or Jew dare set foot within them. The Jewish quarter, where I was lodged, was re-

markable for its extraordinary squalor and filth, and the generally wretched appearance of its inhabitants. The Jews of Tetuan are treated with great harshness, and subjected to numerous indignities. A separate quarter of the town is assigned to them, wherein they are strictly confined after sundown under severe penalties; and various disqualifications, marking them off as a separate and inferior race, help to embitter their existence. They are universally bullied, browbeaten, and despised, and betray the effects of such treatment in their bearing and in every line of their faces. While the poorest Moor deports himself with an air of independence, and walks with a kind of manly swagger, a Jew, however rich, is always timid and cringing, and steals along with an abject air of submissiveness and dejection. The same system of persecution prevails against them in every city of the empire, except Tangier, where they are tolerably independent. It is impossible to defend such conduct on the part of their oppressors; but when one considers the peculiarities of the Jewish character, one must admit the fact that it is calculated to exasperate a semi-civilized people like the Moors in almost every conceivable manner. Their strange and outlandish customs, their tribal exclusiveness, their obnoxious habits of amassing wealth, and the brutality with which they use such power as they may become possessed of, all serve to subject them to the odium of those who, while they are their undisputed masters, yet feel they cannot get on without them. "Sufferance is the badge of all their tribe," and the conventional idea of the Jew exemplified by Shylock, is, I take it, very often the correct one in these countries; and while human nature remains what it is, we must not be surprised at their being periodically the victims of popular outbreaks, however much we may deplore the fact. "Frenchman good, German good, Englishman very good—Jew no good," a polite donkey-boy remarked to me one day; and he was only expressing the sentiments of the vast majority of his compatriots.

I had some capital shooting the first day, and devoted the evening and fol-

lowing day to sight-seeing—my host, Mr. Isaac Nahon, being most obliging in his attentions, and accompanying me through the town. There are no less than three *sokos*, or market-places, inside the walls. The first of these, as I walked through, was filled with women from the country selling embroidery and richly worked vestments. As I was bargaining with them one lady waxed quite festive, and, slightly lowering her veil, seemed disposed to commence a flirtation, whereat she was sternly reproved by a bystander for her undue familiarity. Perhaps it was her husband. The shops in the town were very curious, the two chief trades being in leather-work and Moorish guns. The manufacturers of the latter occupy a large section of the town, and here these antique weapons are turned out by hundreds, the whole of Morocco being supplied from Tetuan. It was a most interesting process to watch: rude hand-work, unassisted by machinery of any kind, with the single exception of a large wheel, which, turned by hand, served to roll the barrel into shape. One set of workmen made the barrels, another the hammers and locks, and a third the wood-work. A plain gun will fetch about five dollars, but some of them are beautifully worked in ebony and ivory, and sell for a much higher price. From the gunsmiths' shops we walked down to the ancient palace of Tetuan, once the residence of the Court, but now for the most part in an uninhabitable condition. There was a fine Moorish court in the centre, with some beautiful wood-carving and mosaics on the walls, but the latter were defaced by the whitewash, which is the bane of all Moorish architecture, though they would deem it sacrilege to remove it. As we passed out I caught a glimpse of the Bashaw and his suite in a room near the entrance, but did not venture to look long at his Highness. Returning through the street we met a noisy procession of men and boys on the way to pray for rain, which was sorely needed, at the tomb of a patron saint. One man directed the proceedings, and tried to keep every one in his proper place, occasionally administering sound knocks to youths whose movements were unduly erratic. It is customary to place

dishes of *kus-kussoo* (the national dish of Morocco) upon the tomb in the evening. The next morning the grave is revisited, and if, as in famine time is not unlikely to happen, the food has disappeared, it is considered a favorable sign that the saint will incline his ear to their prayers. We next made our way up the *kasbah*, and thence through a large Arab cemetery, where, it being Friday (the Mohammedan Sabbath), white-robed women were flitting about like ghosts, weeping and praying at the tombs of departed relatives. On the way down I saw a black slave following his master like a sheep, being cried through the streets for sale. This was the only occasion on which I actually witnessed the process, though I was told that slave-markets are frequently held on the quiet at Tangier, while they are of frequent occurrence at Larache. It is strange that this hateful institution, while rigorously suppressed in remoter countries, should flourish in such close proximity to Europe. Slavery, however, in Morocco is far from being the brutal system that existed in Christian countries; for the Mohammedans as a rule treat their charges well, and the slaves are happy and contented.

Through the courtesy of the owner I was permitted to visit the house of a rich Moor of Tetuan, and at two in the afternoon presented myself at the door. I was received in a very cordial manner by my host, and conducted through a court richly decorated with mosaics and tile-work and a fountain in the centre, into an inner room. Here he pointed to a luxurious divan, and seating himself opposite me proceeded to pump me quite dry on a most astonishing variety of subjects. He was an elderly man—of a grave and intelligent cast of countenance, and with that air of well-bred dignity which seems habitual with orientals. He had travelled a great deal for a Moor, and spoke French with tolerable fluency. He was anxious to know if the French were still in Tunis, and expressed his dislike and contempt for them in no measured terms—saying they were good enough to fight against half-armed Arabs, but that the Germans could beat them any time they liked. He felt certain, moreover, that they had designs upon Morocco, and

inquired if there was any truth in the rumors of a recent engagement on the frontier. He was much interested in England, and said he had been in London, where he had seen the Queen, and wanted to know her Majesty's mode of life and all about her, till it became necessary to explain that, not being an intimate at Court, I was hardly qualified to answer. At this point my host's brother came in and followed the conversation with evident interest—suggesting questions to his relation to put to me, my replies being translated to him in Arabic. A wonderful string of interrogatories here followed. "Was there not much sugar and corn in London?" (two great necessities of Moorish existence). What was the extent of the British empire? and how many subjects had we in India? When I replied that her Majesty ruled over 200,000,000 natives, with 40,000,000 Mohammedans, they opened their eyes; and I think it was only native politeness that prevented them expressing incredulity at the statement. What was my age and profession? Was I a Protestant or a Roman Catholic? and what was the difference between them? Did the Protestants believe in Jesus Christ? and was He the Author of the Bible? On my replying in the negative, a slight pause ensued, after which he wanted to know how old the world was according to the Bible. I said that by strictly following the Bible narrative we made the world out to be 6000 years old. He was greatly pleased at this, and said that coincided with the Koran. "But," he went on, "can you tell me how it is that while the Koran and the Bible both agree in saying that the world is 6000 years old, the Chinese Book, on the contrary, declares it to be 33,000?" This was rather a stumper; so I replied cautiously, that I really could not say, but that many wise and learned men in Europe thought that the world was a great deal older even than that. At this they both relapsed into silence, and became awhile absorbed in reflection. The celibacy of the clergy was also a question that interested him, and he appeared quite relieved when I told him that our priests might marry like other people. After some further conversation we adjourned upstairs into a

little room on the second story, commanding a beautiful view eastward over the plain. The whole house was richly furnished ; and he showed me an American "Champion Regulator" clock with especial pride, though he did not say by what means he regulated the time. I was afterward informed, on excellent authority, that my friend's name was Kteeb, and that he was of very ancient lineage — being, in fact, a direct descendant of Boabdil. His uncle still keeps the keys of the gate in the Alhambra by which that monarch sallied forth to meet Ferdinand at the final conquest and surrender of Granada, and which the latter granted him at his special request. It is said that several of the Moors in Tetuan still retain the keys of their ancestors' houses, and the title-deeds to their estates in Granada — that earthly Paradise to which, every Friday, they devoutly pray they may one day be restored.

I should have liked to make an excursion in the mountains to the south of Tetuan, but it is said to be unsafe, and "the escort" would not hear of it ; so after one more good turn at my friends the snipe, I rode back to Tangier. My stay in Morocco was now nearly at an end, and it was with genuine regret that I soon after bade farewell to this delightful country, with its never-failing sources of amusement, its curious people, and all its interesting ceremonies of the past. I do not suppose the present state of things will long continue. The foot of the British tourist has not left its impression very deeply upon Morocco as yet ; but doubtless ere long we shall hear of Tangier as a regular winter watering-place, or, I should say, a "fashionable health-resort," when the seeker after Nature will have to turn his back upon it and betake himself elsewhere.—*Blackwood's Magazine*.

A TRUE GHOST STORY.

THE tale I am about to tell is a simple statement of facts, without embellishment or explanation.

My wife's mother had in her service a coachman named Philips, apparently an old bachelor, but in reality a widower with one son. The name of the son was James Henry Philips, who had been brought up by friends at a distance, and was apprenticed to a trade in London. With the exception of his own father, no one in our neighborhood but myself was aware of his existence. Nor did I again know much about him, for his father had only twice casually mentioned him to me, though we were on very friendly terms, together.

After a time, however, Philips married again, and I performed the ceremony ; but the son was not there, nor did I even notice his absence. In fact, he had almost entirely slipped out of my mind, for with a large seaside parish on my hands, of which I was curate, my time and attention were fully taken up with matters nearer home. I mention this lest in the course of the following story my readers should chance to think that a deep impression, previously made on my own mind had predisposed me to

see what I saw, and afterward to regard it in a supernatural light. I cannot therefore, too emphatically repeat that I knew next to nothing about James Henry Philips, my friend's son ; that I had never seen him ; and seldom, if ever, thought of him at all.

The next thing I have to state is that when Philips married again, he gave up his situation as coachman, and settled with his wife in a street in my parish, called Dunton Street.

And here it is that the extraordinary part of my story begins. And yet, after all, I have no midnight horrors to relate ; but only something very curious and strange, and that happened too in the broad face of day.

It was a hot and bright afternoon in summer, and I was unrobing in the vestry after service in the church, when my parish clerk, a white-headed old man, with a merry mischievous twinkle in his eye, ushered in a lady, desirous, as he meaningly said, of an interview with me in private. Her errand was this. She had heard that there was sickness in the town, and for her children's sake (and they were legion), she wished to know if the report were

true. If it were, for she was but a visitor, she would seek for lodgings elsewhere. I told her that I would make inquiries, and let her know, if she would kindly leave with me her name and address. She gave her name, which I have forgotten : let us say it was Mrs. Timidity : and her address was Dunton Street, a place already mentioned in this narrative.

Now in Dunton Street there lived at that time, among many others, three persons in particular : viz., my friend Philips ; my new acquaintance, Mrs. Timidity ; and an old lady named Jackson, with whom I was engaged that very afternoon to drink tea. Off then I set, after service in church, like a boy let loose from school, for Mrs. Jackson's house in Dunton Street, which I very soon reached. As if it were only yesterday, I remember perfectly well walking down the broad bright street in the broad bright afternoon. And in going to Mrs. Jackson's abode, I had to pass the house of Philips. I remarked indeed that all his window-blinds were drawn carefully down, as if to screen his furniture, of which his wife was inordinately proud, from the despoiling blaze of the afternoon sun. I smiled inwardly at the thought. I then left the road, stepped on to the side pavement, and looked over the area rails, into the front court below. Why I did so, I cannot exactly say. A young man, dressed in dark clothes, and without a hat, and apparently about twenty years of age, was standing at the door beneath the front steps. On the instant, from his likeness to my friend Philips, I seemed to recognize his son. We both stood and looked very hard at each other. Suddenly, however, he advanced to that part of the area which was immediately below where I was standing, fixed on me a wide, dilated, winkleless sort of stare, and halted. The desire to speak was evidently legible on his face, though nothing audible escaped from his lips. But his eyes spoke ; every feature in his countenance spoke, spoke, as it were, a silent language, in which reproach and pain seemed equally intermingled. At first I was startled ; then I began to feel angry. "Why," I said to myself, "does he look at me in that manner?" At last, annoyance prevailing over sur-

prise, I turned away with the half-muttered thought : "He certainly knows me by sight as a friend of his father, and yet has not the civility to salute me. I will call on the first opportunity and ask his reason for such behavior." I then pursued my way to Mrs. Jackson's house, and thought no more of what had just occurred.

On the next day, Monday, true to my appointment, I called on Mrs. Timidity in Dunton Street, and relieved her mind of all unnecessary fears. On my way home, however, finding myself thus inadvertently in the neighborhood of Philip's house, and feeling certain in my own mind that it was Philip's son I had seen, I determined to call on him at once. My hand indeed was actually on the knocker to seek admittance, when the thought struck me that I had another engagement for five o'clock ; and as it was close upon that hour, I gently replaced the knocker, saying to myself as I turned again to the street, that I would make a point of seeing the young man before the week was out.

Next day was Tuesday ; and out of sight was out of mind. On Wednesday it was my turn to officiate at the local cemetery. I went there in due course, and read the service over a little girl ; and was preparing for instant departure, when the sexton informed me that there was another funeral still, but that the hearse and mourners had not yet arrived. On my asking who was to be buried, I was told that it was a young man from my quarter of the town, who had died of consumption. I cannot give the reason, but immediately I felt startled and ill at ease. It was not that I had the least suspicion that anything extraordinary was about to happen. I had quite forgotten young Philips. The feeling which I think was uppermost in my mind was annoyance at the fact that any one should have died, of such a slow disease, in my parish, but without my knowledge. Accordingly, I waited impatiently for the arrival of the funeral *cortege*, which I beheld approaching in the distance. As soon, then, as it stopped at the cemetery gates, I asked without delay for the registrar's certificate. I took it at once with eager, outstretched hand ; I opened it immediately ; and to my surprise,

my horror—I was going to say, terror—my eyes fell on the words, "James Henry Philips, aged twenty-one years." I felt stunned. I could scarcely believe my own senses; and my surprise was increased, not to say my alarm, when I looked up and saw Philips and his wife as the mourners. With an effort, however, I mastered my feelings for the moment; and with calm lips, but with an agitated heart and confused thoughts, I read the service through to the end.

Need I say that for all that day, and for some time afterward, I felt strangely nervous and upset? My mind was a chaos of doubt. I perpetually asked myself the question, wherein my fault lay, that the young man should have looked at me in such a manner, that the mere recollection of his glance should pierce me to the very soul? Was I the victim of my own imagination, building up unnecessary horrors out of a chance coincidence, singular indeed, but in no sense preternatural? Had I known of his presence in the town, and yet had left him unvisited in his illness, then I could have understood the reproach and pain visible in his face, and could at once have felt that he had come to me with a message of blame from another world. Oh, how that look of his haunted me, mingling with my dreams, and disturbing my waking thoughts! Nay, to this very day, though years have passed, I cannot recall the story without a shudder and a thrill.

Under the pressure of such feelings, it may readily be imagined that I lost but little time before calling on Philips and his wife. I found the latter at home, and what she had to say only made me more uncomfortable still. James Henry Philips bore such a close resemblance to his father, that all who saw him remarked on the striking likeness. In addition to this, during the

last three months of his life, which he spent under his father's roof, he had often wondered that I did not come to see him. His longing for an interview with me had been most intense; and every time he saw me pass the house without going in, he had both felt and expressed a keen disappointment. In fact, he died terribly in earnest, wishing in vain to the last that I would come. The thought pierced me through and through. I had not gone to him, but he had come to me. And yet I would have gone, if I had but known. I blame the doctor for not telling me; I blame the parents for not sending for me; and with that awful look he gave me in my remembrance, I blame myself, though I cannot tell why.

But there is something else I have to tell in order to make this sad short story complete. James Henry Philips had died on the Thursday before the Sunday on which I had seen him. He had died too in the front room, on a level with the area, into which its window opened. He had also lain there till the Wednesday following, awaiting burial. His corpse then was lying in that very room on that very Sunday, and at the very moment too, when I had seen his living likeness, as it were, in the area outside. Nobody, I found, had passed through the area that day; the door there had been locked and unused all the Sunday. The very milkman, the only person who called, had come by the front steps to the house; and Philips and his wife were the only inmates at the time.

Finally, let me observe again that all this happened in the full blaze of day, and so I leave my story with my reader. In short, the tale in itself is so extraordinary, and I know it to be so true, that its plain and bare recital is its own very best witness.*—*Temple Bar.*

CHARLES DICKENS.

BY MOWBRAY MORRIS.

It is stated, and on the very best authority, that within the twelve years that have passed since Dickens's death no less than 4,239,000 volumes of his works have been sold in England alone!

A long way the first on this astonishing list stands "Pickwick," while "David

* In the above narrative the proper names alone are fictitious.

Copperfield," the second, is almost equally far in front of "Dombey and Son;" "Little Dorritt" has found nearly as many readers as "Martin Chuzzlewit," while, with the exception of "Edwin Drood," "The Tale of Two Cities" and "Great Expectations" take the lowest place. Nor has his popularity been confined to England or to English-speaking people. French, German, and Italian, Russian and Swedish translations of his works appeared during his lifetime; when he was still but a young man the pages of "Boz" were devoured, we have been told, with enthusiasm in Silesian villages; "Pickwick," it is said, and on no less circumstantial authority, was found equal, when all else failed, to the task of soothing the sleepless nights of Mehemet Ali; Mr. Forster has published a story of a strange half-human recluse who had built his cell amid the eternal snows of the Sierra Nevada, and who found in "Pickwick" and in "Nicholas Nickleby" the only intercourse with humanity that he desired. If it were true, as has been said by one who has certainly managed to refute his own words,* if it were true that present popularity is the only safe presage of future glory, what an eternity of glory should await Charles Dickens!

And yet present popularity, a vogue, how brilliant and irresistible soever it may be, or what manner of prologue it may furnish to future glory, is quite another matter from that glory itself, from the real definite glory, the one thing, as M. Renan tells us, which has the best chance of not being altogether vanity. That posterity will regard Dickens as he was regarded in his lifetime, or even as we now regard him, is of course out of the question. "To the public," said Professor Ward, in a lecture delivered at Manchester in the year of Dickens's death, "to the public his faults were often inseparable from his merits; and when our critical consciences told us that he was astray in one of his favorite directions, the severest censure we had for him was that he was growing 'more like himself' than ever." That the critical conscience of posterity will have far severer

censure for Dickens than this one cannot doubt, nor indeed can any one thoughtful for the fame of English literature desire that it should not. "No man," it has been well said, "can trust himself to speak of his own time and of his own contemporaries with the same sureness of judgment and the same proportion as of times and men gone by." Even Goethe could not criticise Byron as he criticised Shakespeare or Molière. Not, indeed, that Dickens rested from criticism during his lifetime. So sudden and universal a popularity as his, so original, so self-contained and self-reliant a genius, could not but attract criticism, or what often passes by the name of criticism among contemporaries, both kindly and otherwise. He found, indeed, plenty of both, but all or almost all the criticism he encountered in his lifetime took a bias of one kind or other, the bias of enthusiasm or the bias of opposition, the one perhaps an irresistible consequence of the other—the enthusiasm seeing all things in him because of his marvellous popularity, the opposition seeing nothing in him but that popularity, which, according to its wont, it made every effort to explain away. Neither bias is, of course, so strong now, and particularly the bias of opposition, which is in most cases the soonest counteracted by death. Nevertheless, to form a just estimate of his work, to weigh its merits and its defects and to strike a balance between them, is still perhaps impossible, must certainly, even for us of a later generation, be very difficult. Brought up, as most of us have been, in the faith of Dickens, whose earliest laughter has been stirred by Sam Weller and Dick Swiveller and Mr. Micawber, whose earliest tears have flowed for the sordid wretchedness of David Copperfield's forlorn childhood, or for Florence Dombey toiling up the "great wide vacant stairs," with her brother in her arms, and singing as she goes—who have stolen trembling after Jonas Chuzzlewit through that awful wood, or stared with face as pale as Pip himself at that grim midnight visitor in the lonely Temple chambers; to such it must surely seem little short of profanity to consider too curiously the old familiar pages, to stand afar off, contemplating

* Jeffrey.

with cold impartial scrutiny the old familiar figures, as though, like Trabb's boy, we did not know them.

And besides such sentimental hindrances, the temporary and, as one may say, local hindrances to all criticism, there are others which must always render more than commonly difficult, if indeed possible at all, an absolute judgment on works of fiction which deal so primarily, if not wholly, with the emotions as do the works of Dickens. "It is impossible to resist feeling," said George Henry Lewes, ten years ago in this very Review in his paper on Dickens which moved the scandalized Forster almost to vituperation, "It is impossible to resist feeling. If an author makes me laugh, he is humorous; if he makes me cry, he is pathetic. In vain will any one tell me that such a picture is not laughable, is not pathetic; or that I am wrong in being moved." There are no doubt some passages in imaginative writing which one may fairly say *should* stir the heart of every man. One could hardly, for example, think very nobly of the soul of him who could read how Priam knelt at the feet of Achilles, "and kissed those hands, the terrible, the murderous, which had slain so many of his sons,"* without feeling that he was in the presence of a more than common sorrow; or who could not recognize the incomparable pathos that breathes in such verse as

"do not laugh at me,

For, as I am a man, I think this lady
To be my child Cordelia."

Nevertheless, with works of a lower class, with works rather of the fancy than the imagination, we cannot in reason quarrel either with those who indulge in the "luxury of woe" over passages which leave ourselves unmoved, or with those who can read dry-eyed the words which unlock for us "the sacred source of sympathetic tears." And so with Dickens's humor. It is conceivable that human souls exist who do not laugh at Dick Swiveller or Mrs. Gamp. We should not, some of us, perhaps care greatly for travelling in far countries with such, or for passing many hours in commune with them any-

where; but it would be vain to attempt to demonstrate to them that they should laugh, or to insist upon regarding them as lost to all sense of literary or artistic decency because they did not. Wordsworth could find Voltaire dull; and what Carlyle thought of Charles Lamb we all know.

Of course, with the other qualities or characteristics of Dickens's work, as of all work—his powers of description, for example, of observation, his powers of narration and composition, his style and his literary workmanship generally—the case will be different. But these two, the qualities of humor and of pathos, so largely predominate all his work, that it seems to me almost impossible for any judgment to be *absolute*, to use Lewes' phrase; it must, I think, be *individual*. Still, from many individual judgments a deduction may perhaps be made which, though not in itself absolute, nor even tending to the absolute, may yet be of avail in promoting a sounder estimate, in counteracting the bias both of enthusiasm and opposition.

Merely personal considerations, that "soul of good nature and kindness," which Mr. Matthew Arnold has found so irresistible in "David Copperfield," and which his friends loved so wisely and so well in the man, largely as such influences must always inform contemporary judgment, will not avail with posterity, nor is it right that they should. Despite M. Scherer's high recommendation, the historical method of criticism, the "analysis of the writer's character and the study of his age" will not really insure the "right understanding" of his work. It may enable us, no doubt, to account for much of his work, but not necessarily to understand, and surely still less to judge it. It will help us often to understand how the particular good comes to be so good, and the bad so bad; but to assist us in discriminating the good and bad it must surely be of little worth. Nevertheless, a clear knowledge of Dickens's life and character, of his age and his position with regard to his age—to which knowledge Mr. Forster's very full biography, ardent admirer and affectionate friend as he was, must always largely contribute—will go far to explain and to account for many things in his writings

* "Iliad, xxiv. 478-9.

which may puzzle posterity; which would certainly puzzle a posterity which had derived its knowledge only from that other friend of his who has described him as "followed, admired, courted, lionized, almost idolized, by almost all that was wealthy and dignified and beautiful in society." It will go far, for instance, to account for the extraordinary one-sidedness and the consequent ineffectualness of so much of his satire, and especially of his satire on the governing classes and the upper classes of society generally. It will go far to explain whence it happens that, despite his own disclaimer of "placing in opposition those two words, Aristocracy and People," he yet seems so often unable to resist the temptation of the contrast, and always, or nearly always, to the disadvantage of the former; to explain whence it comes, though he has avowed that he "would not on any account deprive either of a single just right belonging to it," that the rights of the one seem to him so much more just, so much more certain than the rights of the other. "I believe," he said, speaking at Boston during his first visit to America, "I believe that virtue dwells rather oftener in alleys and byways than she does in courts and palaces." A judicious use of the historical method will no doubt help to explain the grounds for this belief, to explain the lack of firmness in the step, of keenness in the eye, of sureness in the touch, as he gets farther away from the alleys and byways, and nearer to the courts and palaces; but to say that this method will be necessary to enable the reader to detect the faults which arise from the prevalence of these sentiments, and their too aggressive advocacy, is surely to attribute to him an incapacity for judging which no method of criticism hitherto revealed to man could really hope to counteract. Professor Ward has told us in his interesting and sensible little book,* that there was "something singular in the admiration that Dickens and Carlyle felt for one another." He has pointed out how many are the proofs in the former's works of his "readiness to accept the

teachings of one whom he declared he would go at all times farther to see than any man alive." He has reminded us how Carlyle, after an acquaintance of almost thirty years, spoke of Dickens as a "most cordial, sincere, clear-sighted, quietly decisive, just, and loving man;" and he adds: "There is not one of these epithets but seems well considered and well chosen." "But," he also adds, "neither Carlyle nor Dickens possessed a moral quality omitted in this list, the quality of patience, which abhors either 'quietly' or 'loudly' deciding a question before considering it under all its aspects, and in a spirit of fairness to all sides." One may observe, perhaps, in passing, that a man who did not possess the patience necessary to consider fairly all sides of a question could not well be called *clear-sighted* in the best sense of the word. But to know this, to know how deep the admiration Dickens felt for Carlyle, and his readiness always to accept the latter's teachings, will no doubt help the future student to account for much of Dickens's work, but will hardly help him to judge it.

Again, the historical method, to keep it with us awhile longer, may undoubtedly avail to enable the reader to account for that note of extravagance which is too rarely absent from Dickens's work, and which, it seems to me, is likely to tell most strongly against it in the future—the want of a capacity of self-judgment and restraint. He tells us, through the mouth of David Copperfield,* that his two "golden rules" were, "never to put one hand to anything on which I could throw my whole self; and never to affect depreciation of my work, whatever it was." Two golden rules, no doubt, but without the power of seeing and judging that work as it really is, no less certainly capable of leading the workman at times a little astray. We can hardly doubt that they sometimes led Dickens astray. Every one who has read Mr. Forster's biography will remember the exuberant delight with which Dickens recounts the increasing sale of each successive work, without any apparent thought of their respective deserts. That his bad work

* "English Men of Letters:" Dickens. By A. W. Ward. Macmillan & Co.

* "David Copperfield." Ch. xlii.

should sell as well as his good suggested nothing to him, because to him there seemed no difference between the two ; the work he was for the moment engaged on was to him the best. "Little Dorrit," he writes, "has beaten even 'Bleak House' out of the field. It is a most tremendous start, and I am overjoyed at it;" and "you know," he adds, "that they sold 35,000 of number two on New Year's Day." He can see no reason why this should not be ; he sees no distinction, or he does not care to see any, between perhaps the worst book he ever wrote and one which is certainly among his best. We are told that he was extraordinarily sensitive both to praise or blame. No great writer has ever really despised or ignored either, whatever indifference he may have affected in moments of pique ; but with Dickens it is clear, from many things Mr. Forster tells us, and from much in his own letters, this only meant that he swallowed every sort of praise and rejected every sort of blame ; that, in short, he was rather minded to regard the critics who did not accept all his outpourings unreservedly much as Mr. Micawber regarded his wife's family, as, "in the aggregate impertinent Snobs ; and, in detail, unmitigated Ruffians." We may detect the same note, too, in what Mr. Ward calls his "innocent ecstasies" over the success of his readings, ecstasies which, as Mr. Ward so truly says, would in any other man have furnished him with inexhaustible subjects for parody. And still more clearly do we find it in his feverish descriptions to Forster of the manner in which he flung himself into his characters, and of the reality which their counterfeit emotions aroused in him. I will not instance his well-known letter about little Nell, for with that was interwoven the recollection of a real sorrow which removes it without the pale of criticism. But the death of little Paul affected him in an equal manner, and he seems to have regarded it as an equal masterpiece of pathetic writing. "Paul's death," he writes, "has amazed Paris" (it was written in Paris), "and all sorts of people are open-mouthed with admiration ;" and elsewhere he is described as throughout the greater part of the night of the day

on which it was written wandering about the streets "desolate and sad." As far as the little girl is concerned, perhaps the balance of opinion leans toward Dickens ; but certainly nowadays the majority of readers experience a sense mostly of relief at the premature blighting of the other of these two "opening buds." Jeffrey, to be sure, thought it, as Dickens tells us, "the best thing, past, present, and to come ;" and, indeed, he himself has told us how he "cried and sobbed over it," and felt his heart "purified by those tears :" but Jeffrey was then, we must remember, in his seventy-fifth year, and man, when past the threescore years and ten, is apt to be a little *ἀρτιδακτυς*, as Medea says. Again, we find Dickens writing from Genoa, "This book ('The Chimes') has made my face white in a foreign land. My cheeks, which were beginning to fill out, have sunk again ; my eyes have grown immensely large ; my hair is very lank ; and the head inside the hair is hot and giddy. Read the scene at the end of the third part twice. I wouldn't write it twice for something." Such a diagnosis as this is, perhaps, the most striking instance on record of what Mr. Ruskin has so happily styled the "pathetic fallacy."

All that we know of Dickens forbids us to doubt that he wrote such things in perfect sincerity, and not merely with a view to effect, as so many distinguished men have written to a sympathetic friend in whom they foresaw a future biographer : to doubt that he really was, or—which is practically the same—really believed himself to be, in the mental and bodily condition he has described, whether in sober earnest he was so or not. And with this assurance do we not come at once to the secret of that want of proportion, of the artistic sense of limitation and restraint, which, now showing itself in this phase and now in that, is the one capital defect of Dickens's work ? A man who could write about himself as he has so often written to Forster, and write in perfect honesty, could not, one feels, have the shaping power, the control of the true artist so important in all works of the imagination, so vital to an imagination of such astonishing fertility and vividness working without a basis of training

and education—an imagination which many, by no means inclined to accept Dickens without reservation, have thought is not to be surpassed outside the works of Shakespeare. And just as Mr. Arnold has shown us how we do not conceive, or should not at least conceive, of Shakespeare as preëminently the *great artist* in that sense, which is the real sense of the word, the sense of "pure and flawless workmanship," so, it seems to me, we cannot properly conceive of Dickens, often as the word has been applied to him, often, no doubt, as it will be. It is not necessary to compare him with Thackeray in the sense in which such comparisons may be said to be odious, to affect to decide which is the greater of two so great writers. Hereafter, of course, such a comparison will have to be made, as it must inevitably be made in the case of all fellow-workers of importance in any field; but for us now, standing so close to them as we do, it were better, perhaps, to remember the saying of Goethe: "For twenty years the public has been disputing which is the greatest, Schiller or I; and it ought to be glad that it has got a couple of fellows about whom it *can* dispute." Nevertheless, that unthinking partisanship which we so often meet with among the admirers of Dickens, and which "stares tremendous with a threatening eye" at the very name of Thackeray, is surely no less idle. To compare these two men—friends, contemporaries, each working in the same field of letters, to examine their different modes of handling similar, or nearly similar, subjects—to compare them, in short, in the sense of illustrating the one by the other, must surely be as inevitable as it should be fruitful. And so, in thinking of Dickens's position as the *artist*, of the quality of his workmanship, in considering him, if I may coin the word, *architectonically*, there inevitably rises also in one's thoughts the predominance of this quality in Thackeray. Profound as is my admiration for Thackeray, and ever fresh the pleasure with which I go back again and again to his writings, it seems to me impossible to deny that Dickens was the more abundantly gifted of the two; he had, I mean, a larger proportion of the gifts which go to

make the writer of fiction, and those he had in which the other was wanting, or possessed, at least, in a less degree, are precisely those which commend themselves most immediately and vividly to the majority of readers, which take soonest hold of the popular imagination and sympathy, and keep them longest. But the true artist's touch, the sense of limitation, of symmetry, the self-control, the sure perception, in a word, of the exact moment when "*the rest should be silence*," which so powerfully impresses us in Thackeray's best work—in such work as "*Vanity Fair*," and "*Esmond*," and "*Barry Lyndon*"—we never, or hardly ever, find in Dickens. And is it not by this quality, in this secret of consummate workmanship, that the novelist has, after all, the best chance of surviving: that the works which show this preëminently, or even conspicuously, are likely to keep sweet the longest? The fictions which paint the manners and humors of contemporary life, which deal with portraits rather than with types of humanity, with the individualities of nature rather, and not with her universal and eternal properties, must inevitably lose, for an age which cannot recognize the fidelity of the painting, cannot, perhaps, comprehend the possibility of fidelity, much of that which once constituted its chiefest charm. But the charm of perfect workmanship can never die. "*Tom Jones*" will outlive the palace of the Escurial, not because it is a picture of humor and manners, but because it is an *exquisite* picture.

It has been the fashion with us to depreciate M. Taine's criticism of Dickens; and there is, undoubtedly, something comical to an English reader in hearing that Dickens had not "*the quality of happiness*." English wit, M. Taine says, consists in saying light jests in a solemn manner, and so "*Dickens remains grave while drawing his caricatures*." Undoubtedly, too, it is a little startling to an Englishman to find that "*French taste, always measured, revolts against affected strokes and sickly prettinesses*;" and to find the critic gravely ignoring the one quality in which to most English readers Dickens stands preëminent—the quality of humor; though this, to be sure, will be

less inexplicable to those who remember how gravely M. Taine has quoted the cant use among young people of the word *governor*, as an instance of the high authority and dignity with which the father is invested in an English household. But M. Taine's criticism is very far indeed from being all as wayward as this ; on the contrary it is often remarkably just and acute. On this defect, for example, this want of controlling and shaping power, he seizes at once, and illustrates it very happily. "In a writer of novels," he says, "the imagination is the master faculty ; the art of composition, good taste, appreciation of truth, depend upon it ; one degree more of vehemence destroys the style which expresses it, changes the character which it produces, breaks the framework in which it is enclosed. Consider that of Dickens, and you will perceive therein the cause of his faults and his merits, his power and his excess." And the effect of this "one degree more of vehemence" he often points out with signal felicity. He shows how the source of those extraordinary minute descriptions of localities, and of phases of nature—a windy day, a storm, and so forth—which impress the reader at first with what seems their marvellous reality, is in very truth the imagination. We often talk of Dickens's astonishing powers of observation, and astonishing indeed they are ; but too often they produce no more than a half result, because he had not at the same time perception, which is the crucible of observation. His observation kept him constantly supplied with a crude mass of material, on which his imagination worked often with wonderful power and effect, but the capacity for refining this mass, for selecting and shaping it, he had not.

"An imagination," M. Taine says again, "so lucid and energetic cannot but animate inanimate objects without an effort. It provokes in the mind in which it works extraordinary emotions, and the author pours over the objects which he figures to himself something of the ever-willing passions which overflow in him." Mr. Forster has expended a great deal of somewhat clumsy irony in ridiculing this passage, but in truth it is only saying in other words that Dickens

had in an eminent degree the temperament which admits the "pathetic fallacy," the temperament, to use Mr. Ruskin's words, "of a mind and body in some sort too weak to deal fully with what is before them ; borne away, or overclouded, or overdazzled by emotion." Mr. Ruskin, it will be remembered, makes use of this phrase, the pathetic fallacy, to point the difference between the ordinary, proper, and true appearance of things to us, and their extraordinary or false appearance when we are under the influence of emotion or contemplative fancy—false appearance, that is to say, as being entirely unconnected with any real power or character in the object, and only imputed to it by us. And this fallacy, he says, is of two kinds—there is the fallacy of wilful fancy, which involves no real expectation that it will be believed ; or else it is a fallacy caused by an excited state of the feelings, making us for the time more or less irrational.

It would be easy to fill a volume with instances of this fallacy from Dickens's works. M. Taine gives one from "The Chimes,"* a description of the wind blowing in a church at night, and the famous description of Venice is full of them.† But, indeed, Dickens hardly ever describes the aspects or the workings of Nature without having recourse to it, at first unintentionally, as "borne away, or overclouded by emotion;" latterly because he found it very popular (for, as Mr. Ruskin says, much of our favorite writing, though he is dealing only with poetry, is full of it, and we like it all the more for being so), and because the vividness of his fancy made it very easy to him. For, powerful as his imagination was, his fancy was yet more powerful. In all great writers the fancy at first overbears the imagination ; in Shakespeare's early work, for example, in the "Venus and Adonis" and the "Lucrece," the fancy is almost supreme ; but with the greatest, in time the imagination prevails. In Dickens, on the contrary, as time wore on, the

* "The Chimes," first quarter. "For the night wind has a dismal trick of wandering round and round a building of that sort," etc.

† "Pictures from Italy;" an Italian dream.

imagination became weaker, and the calls upon the fancy in consequence more frequent and urgent; instead of the death of Nancy we get the death of Miss Haversham, and Mr. Sapsea instead of Mr. Pecksniff.

Scott, when he describes a scene or an incident, does so in a few broad strokes; Dickens with an extraordinary number of minute touches, each one of astonishing accuracy and fineness, such as would have occurred probably to no other man. In reading Scott we are not at the moment struck with the felicity or the power of any particular touch, but the general impression left upon our imagination is singularly precise and luminous. On the other hand, in reading Dickens, we are continually pausing to wonder at the quickness, the accuracy, the range of his vision, but the general impression is often vague and confusing from this very many-sidedness. He seems, as it were, to see too many things, and to see them all too instantaneously, to allow his reader to get a clear recollection of any one. He catalogues rather than describes. Admirable in their way are the pictures of the French Revolution in "The Tale of Two Cities," or of the Gordon Riots in "Barnaby Rudge," the impression of them we keep with us as we lay the book down is hardly so clear and strong as the impression left on us, for example, by the description of the death of Porteus in the opening chapter of "The Heart of Midlothian." The most profuse and elaborate embellishments of Dickens's fancy cannot vie with the stern and grand straightforwardness of the incomparable scene in Wandering Willie's tale, where Steenie Piper goes down into hell to win the receipt back from his old master.* Hazlitt says somewhere of Crabbe's poetry, that he "describes the interior of a cottage like a person sent there to distrain for rent." The illustration is not inapplicable sometimes to the method of Dickens.

And yet at other times how large and free that method can be in painting scene or incident! Here, as elsewhere, Dickens can himself supply the antidote no less surely than the bane. He himself can show us how differently he

works when he is describing, as M. Taine says, like Scott, "to give his reader a map, and to lay down the locality of his drama;" and when "struck with a certain spectacle, he is transported, and breaks out into unforeseen figures." If any one will turn to "Great Expectations" and read the description of that fruitless journey down the river from Mill-Pond Stairs to the Nore,* or to almost any of the descriptive passages in "Oliver Twist,"† and then turn to "Dombey and Son" and read the description of Carker's return to England,† he can make the contrast for himself.

It is only natural that this want of proportion and control, this riot of fancy, should be most conspicuous on the romantic and sentimental side of Dickens's work. But we may trace it with more or less distinctness everywhere. We find it even in his own particular domain, in the scenes where he walks supreme, the mighty master of a humor incomparable and his own. There we are so completely in his power that he has but to wave his wand and we are prostrate. Yet it is impossible not to feel even here that he uses this power too indiscriminately, intemperately sometimes, and unreasonably. It is so rich and so wonderful, that humor of his, that we cannot but welcome it whenever and wherever it greets us. Yet when the "burst of joyful greetings" is over, reflection will sometimes obtrude. There is an instance in "David Copperfield"—in which delightful book, by the way, instances of this or of any other of the writer's defects are few and far between. It is in the scene where that "HEEP of villainy" has forced his suspicions on the old Doctor, and has dragged David in as his unwilling witness. David, it will be remembered, concentrating years of distrust and loathing into one moment, has struck the scoundrel in the face, and the singularly calm reception of the insult has not improved his temper. Then he leaves him: "merely telling

* "Great Expectations," chap. iv.

† The journey of Sikes and Oliver to Chertsey, for example, in chap. xxi., or the description of Jacob's Island in chap. I, and, indeed, the whole of that wonderful scene.

‡ "Dombey and Son," chap. iv.

* "Redgauntlet," letter xi.

him that I should expect from him what I always had expected, and had never yet been disappointed in. I opened the door upon him, as if he had been a great walnut put there to be cracked, and went out of the house."* One cannot but smile at the quaintness of the fancy here, and one cannot but feel how sadly out of place it is in so serious, so pitiful a scene. In "Martin Chuzzlewit" there is a still more painful instance in the description of the poor old clerk's grief for his dead master, where he mixes up recollections of the counting-house with his sorrow in the strangest and most incongruous manner. "Take him from me, and what remains?"† Every one must be conscious what a terribly false note is struck here. It is in such writing as this that Dickens's vulgarity lies. He is not vulgar because he deals with common subjects—subjects which are called vulgar by his genteel depreciators, the Mr. and Mrs. Wititterleys of our day—but because he too often deals with great subjects in a vulgar, an ignoble manner. There is extraordinary humor, and wit too, in the old clerk's wail of despair—"Take him from me, and what remains?" but in the circumstance how cruel it is! how brutal, one feels inclined almost to say! It is, to use Joubert's phrase, a monstrosity of literature. Professor Ward talks of Dickens's characters being as true to nature as the "most elaborated productions of Addison's art." But there is a production of Addison's art in which an old servant bewails his master's death in a very different fashion to this—I mean the letter in the 517th number of the *Spectator*.

But who would speak harshly of Dickens, of that "soul of good-nature and kindness!" There are instances in plenty of this want of perception and proportion, where it exists only, and does not shock; where too, it not seldom has an effect, though an inharmonious, an isolated effect of its own. Take, for example, that so common trick of his, of pointing, of underlining, as it were, his characters' comical sayings with an explanation of his own—comical, too, in itself often enough—as

though he were so delighted with the fun (and who can blame him for it!) that he could not leave it. The immortal Mrs. Gamp supplies an instance of it, in her magnificent apostrophe to the "Ankworks package." "And I wish it was in Jonadige's belly, I do," cried Mrs. Gamp, appearing to confound the prophet with the whale in this miraculous aspiration."* If this were our first introduction to Mrs. Gamp, possibly some explanation might be due. But already, when we meet her among the steamboats, we know her well, her marvellous praseology, her quaint illustrations, her irrelevant turns of thought. Nothing could be happier than the explanation, but it is a mistake. "I wish it was in Jonadige's belly, I do;" this ends it. Thackeray, let me say, is singularly free from this fault, which is of course by no means common to Dickens. Thackeray never explains. He will talk often enough in his own person, too often, perhaps, some may think; but while his characters are talking he stands aside and lets them speak for themselves. Take the scene at Rosenbad, where Warrington tells, for Pen's edification, the great mistake of his life.

"By gad, sir," cried the major, in high good-humor, "I intended you to marry Miss Laura here."

"And, by gad, Master Shallow, I owe you a thousand pounds," Warrington said.

"How d'ye mean a thousand? It was only a pony, sir," replied the major simply, at which the other laughed.†

Does not one feel here how comical Dickens would have been over the major's simplicity, how comical and how superfluous? And cannot one, too, conceive into what an ingenious labyrinth of explanations he would have led us as he followed that astonishing house-keeper over the galleries of Carabbas Castle?‡ But Dickens himself can sometimes be nobly free from this defect, and when free how far more effective he is. In one of Montagu Tigg's speeches there is a capital instance in the speech where he seeks to impress upon Pecksniff his earnest-

* "David Copperfield," chap. xlii.

† "Martin Chuzzlewit," chap. xix.

* "Martin Chuzzlewit," chap. xl.

† "Pendennis," chap. lvii.

‡ "Book of Snobs," chap. xxviii.

ness and good faith, and the necessity for their all banding together in the common cause, the cause being the money-bags of old Martin Chuzzlewit, then lying sick at the Dragon. "I give you my brightest word of honor, sir, that I've been looking through that keyhole, with short intervals of rest, ever since nine o'clock this morning."^{*} How admirable is that touch, "I give you my brightest word of honor!" How the rogue stands before us in his unblushing impudence! Volumes could not say more; and, happily, it comes here in the middle of the speech, and Dickens cannot stop to add any words of his own to it. "Underlining," he once wrote to Mr. Wilkie Collins, "is not my way." Alas! is there another writer of equal genius who goes astray by this way more often than he?

How far a regular education would have supplied the one thing wanting to Dickens, or whether it would not rather have tended to restrict and weaken his native gifts without any counterbalancing advantages, has always been, and probably always will be, a disputed point. Mr. Bagehot was root and branch opposed to the notion.[†] Men of regular and symmetrical genius, he allows, may be benefited by it, but Dickens's genius, he says, was irregular and anomalous. It would have been absurd, he argues, "to have shut up his observant youth within the walls of a college. They would have taught him nothing about Mrs. Gamp there; Sam Weller took no degree." A regular education, in the sense in which the phrase is too commonly understood, might have done little to cultivate the peculiar faculties with which Dickens worked, and might possibly have given them a wholly different ply. It is clear that a nice appreciation of the Ethics of Aristotle would have added no touch to Mrs. Gamp; that Sam Weller would have profited nothing by his creator's capacity for turning a page of the *Spectator* into Ciceronian prose. And Dickens, as he is, is so wonderful, so delightful, that it is, perhaps, no more than natural to distrust any proposition

which might have tended to make him other than he is.* Nevertheless his defects exist, and are what they are; and, remembering what they are, it is surely impossible to doubt that some stricter intellectual and aesthetical discipline than fell to his share would not have greatly lessened, if not altogether removed them. This prime defect, the defect from which all his others spring, the want of artistic perception and control, is precisely such as a larger and deeper acquaintance with "the best that has been said and thought in the world" would have been most instrumental in removing. It would have tempered his fancy and strengthened his imagination; it would have fertilized a soil naturally rich and productive, but inevitably weakened by a system which drained without renewing the gifts of nature. When those splendid and untiring spirits which count so eminently in his earlier work died, as in the course of nature they could not but die away, it would have given him in their stead a second harvest, less easy to gather perhaps, and less alluring to the eye, but of larger grain and mellower growth. Reading alone does not, it is true, make a full man. "Reading," wrote Burke to his son, "and much reading, is good; but the power of diversifying the matter infinitely in your own mind, and of applying it to every occasion that arises, is far better." But the power of diversifying the matter is of little avail without the matter. That Dickens's acquaintance with any kind of literature was extremely superficial even Mr. Forster is obliged to confess; and though that thorough-going friend has sought to show that Dickens's judgments on such literature as he had read were sound, he does not really prove much more than that he had read very little. No doubt the influence of his great forerunners, Fielding and Smollett, may be detected in his writings—of Goldsmith, the traces that Professor Ward discovers are hard-

* "Martin Chuzzlewit," chap. iv.

[†] "Literary Studies: Charles Dickens," vol. II.

"Personne," says M. Edmond Scheres, "personne ne reconnaît plus que noi ce qu'il y a d'injuste, pour ne pas dire d'absurde, à demander d'un auteur autre chose que ce qu'il a voulu donner, ou pire encore, à lui reprocher de ne pas être un autre homme que la Nature ne l'a fait."

ly so clear—but it seems to me that it was less the way in which they worked than had influenced him than the material with which they worked. "His writings," says Mr. Baghot, "nowhere indicate that he possesses in any degree the passive taste which decides what is good in the writings of other people, and what is not, and which performs the same critical duty upon a writer's own efforts when the confusing mists of productive imagination have passed away. Nor has he the gentlemanly instinct which in many minds supplies the place of purely critical discernment, and which, by constant association with those who know what is best, acquires a secondhand perception of that which is best." Hard speaking, perhaps, but indisputably true. The constant association with what is best must be fruitful of good to every man, whatever his natural gifts may be, whatever the field in which he employs them. And high as must be our admiration for the work of Dickens's unaided genius, to deny that education would have removed from that work so much of what is not best, and which too often cramps and hinders what is, adds nothing to his praise ; to allow it, takes nothing away.

I have said that in "David Copperfield" Dickens is freer from defect than in any other of his works. It is rarely that public opinion has ratified an author's judgment so completely as it has here. As we all know, this was Dickens's favorite, and the reason we all know. It may be noted in passing, how characteristic of the two men is their choice. To Dickens "David Copperfield" was, to use his own words, his favorite child, because in its pages he saw the reflection of his own youth. Thackeray, though he never spoke out on such matters, is generally believed to have looked not a little into his own heart when he wrote "Pendennis." Yet his favorite was "Esmond," for "Esmond" he rightly felt to be the most complete and perfect of his works ; in that exquisite book his *art* touched its highest point. With "David Copperfield," no doubt the secret of the writer's partiality is in some sense the secret of the reader's. Though none, perhaps, have been so outspoken as Hogg, every man takes pleasure in writ-

ing about himself, and we are always pleased to hear what he has to say ; egotism, as Macaulay says, so unpopular in conversation, is always popular in writing. But not in the charm of autobiography alone lies the fascination which this delightful book has exercised on every class of readers. It is not only Dickens's most attractive work, but it is his best work. And it is his best for this reason, that whereas in all his others he is continually striving to realize the conception of his fancy, in this alone his business is to idealize the reality ; in this alone, as it seems to me, his imagination prevails over his fancy. In this alone he is never grotesque, or for him so rarely that we hardly care to qualify the adverb. Nowhere else is his pathos so tender and so sure ; nowhere else is his humor, though often more boisterous and more abundant, so easy and so fine ; nowhere else is his observation so vivid and so deep ; nowhere else has he held with so sure a hand the balance between the classes. If in the character of Daniel Pegotty more eloquently and more reasonably than he has ever done elsewhere, even in honest Joe Gargery, he has enlarged on his favorite abiding-place for virtue, he has also nowhere else been so ready and so glad to welcome her in those more seemly places wherein for the most part he can find no resting-place for her feet. Weak-minded as Doctor Strong is, fatuous, if the reader pleases, we are never asked to laugh at the kindly, chivalrous old scholar, as we are at Sir Leicester Dedlock ; Clara Pegotty is no better woman than Agnes Wickfield. And even in smaller matters, and in the characters of second-rate importance, we may find the same sureness of touch. It has been made a reproach against him that his characters are too apt to be forgotten in the externals of their callings, that they never speak without some allusion to their occupations, and cannot be separated from them. In the extraordinary number and variety of characters that he has drawn, no doubt one can find instances of this. For so many of these characters, nearly all, indeed, of the comic ones, real as he has made them to us, are not, when we come to examine them, realities, but rather conceptions

of his fancy, which he has to shape into realities by the use of certain traits and peculiarities of humanity with which his extraordinary observation has supplied him. Major Pendennis, and Costigan, and Becky Sharp are realities whom Thackeray idealizes, makes characters of fiction out of. But Sam Weller and Mrs. Gamp are the children of fancy whom Dickens makes real, partly by the addition of sundry human attributes, but even more so by the marvellous skill and distinctness with which he brings them and keeps them before us. But in order to do this he is obliged never to lose sight, or to suffer us to lose sight, of those peculiarities, whether of speech, or manner, or condition, which make them for us the realities that they are. And in so doing it cannot but happen that he seems to thrust those peculiarities at times somewhat too persistently upon us. In "David Copperfield" this is not so, or much less so than anywhere else, except, of course, in "The Tale of Two Cities," Dickens's only essay at the romance proper, where the characters are subordinate to the story. We may see this, for example, by comparing Omer, the undertaker, in "David Copperfield," with Mould, the undertaker, in "Martin Chuzzlewit." Mould and all his family live in a perpetual atmosphere of funerals; his children are represented as solacing their young existences by "playing at buryin' down in the shop, and followin' the order-book to its long home in the iron safe;" and Mr. Mould's own idea of fellowship is of a person "one would almost feel disposed to bury for nothing, and do it neatly, too!" On his first introduction, after old Anthony's death, he sets the seal on his personality by the remark that Jonas's liberal orders for the funeral prove "what was so forcibly observed by the lamented theatrical poet—buried at Stratford—that there is good in everything."^{*} That touch is very comical, but also very grotesque; it is a touch of fancy, not of nature. But when David Copperfield, as a man, recalls himself to the recollection of the good-hearted Omer, who had known him as a boy, the undertaker is revealed

in a very different fashion. "To be sure," said Mr. Omer, touching my waistcoat with his forefinger; "and there was a little child too! *There was two parties. The little party was laid along with the other party.* Over at Blunderstone it was, of course. Dear me! And how have you been since?"^{**} Every one must be conscious of the difference here.

"Corago! and think of 2850," wrote Macaulay in his diary, to console himself for some bitter pill of American criticism he had been forced to swallow. We need not cast our thoughts quite so far into the future to see that much of what gave Dickens his popularity, and still keeps it with so many of us, will avail him nothing then. Those qualities which so endeared his writings to the great mass of his contemporaries, and won the respect even of those who could not always admire the method and direction of their employment, will have for posterity no more attraction than will many of the subjects on which he so lavishly and dauntlessly expended them. Our descendants will have, we may be very sure, too frequent and too real claims upon their compassion to let them spare many tears for those rather theatrical personages which Dickens too often employed to point his moral. Harsh as it may seem to say, whatever his writings may actually have done to reduce the sum of human suffering will tell against rather than for them. It will always be so with those who employ fiction for the purpose of some particular social or political reformation; for the wrongs they help to remove, and the evils they help to redress, will seem slight and unreal in the pages of fiction, because they have so long ceased to form a part of actual existence. A soul of good-nature and kindness is a quality we are right to recognize in contemporary work, and for that work it constitutes a special and a noble title to our praise; but posterity will judge the writings of one whom their forefathers called a great writer by the sheer value of the writing, and such praise, if it be found to rest on no more practical foundation, will seem to them, to use the words of one of Dickens's own

* "Martin Chuzzlewit," chap. xix.

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** "David Copperfield," chap. xxi.

characters, pious, but not to the purpose. It is inevitable that much of his serious and sentimental work will have for future generations neither the attraction nor the solidity that it had for his own. For the tears he sought to draw, the graver feelings he sought to move, he went too often, if I may use the word, to local sources, too often to artificial. What Lamb said of comedy is surely true to a certain extent of all fiction : our "fire-side concerns," attractive as they are to us, cannot in reason have the same attraction for those who have never warmed themselves at our hearth. Each age has its own fireside ; each age provides its own tears. The "familiar matter of to-day" will not be the familiar matter of tomorrow. It is the splendid sorrows of a Priam or a Lear that touch the heart of Time.

"The cease of majesty
Dies not alone ; but like a gulf doth draw
What's near it with it ; it is a massy wheel,
Fix'd on the summit of the highest mount
To whose huge spokes ten thousand lesser
things
Are mortised and adjoin'd : which when it
falls
Each small annexment, petty consequence,
Attends the boisterous ruin. Never alone
Did the king sigh, but with a general groan."

But the quality of a humor founded in the roots of our common humanity can never wax old nor die, and it seems im-

possible to imagine a day when the world will refuse to laugh with Dickens. The careless glance of curiosity, or the student's all-ranging eye, may turn a century hence upon the little Nells and Pauls, the Joes and the Trotty Vecks ; but the Wellers and the Pecksniffs, the Swivellers and the Micawbers must surely abide forever, unchanging and immortal—immortals of lesser note, and with more of mortal mixture, but still of the same lineage with Falstaff. And then with the laughter that they stir will be remembered and confessed the real worth of the noble praise Dean Stanley gave to their creator's memory, praise whose significance our own age has in truth too ample means for judging : "Remember, if there be any who think you cannot be witty without being wicked ; who think that in order to amuse the world, and to awaken the interest of hearers or readers, you must descend to filthy jests, and unclean suggestions, and debasing scenes, so wrote not the genial loving humorist we now mourn. However deep his imagination led him to descend into the dregs of society, he still breathed an untainted atmosphere around him ; he was still able to show by his own example that, even in dealing with the darkest scenes and most degraded characters, genius could be clean and mirth decent."—*Fortnightly Review*.

STAR UNTO STAR.

BY RICHARD A. PROCTOR.

WHEN, nearly twenty years ago, Drs. Huggins and Miller published the first results obtained from the spectroscopic study of stars, few could have supposed that a line of research so difficult and delicate would lead to the bold and startling views of the star depths which now seem opening out before us. Still less would it have been thought that the method of research would be so modified that the observations belonging to it could be pursued without the direct personal study of the stellar spectra which had been found so difficult and even (where exact researches were in question) so painful. In 1864 the observer who wished to determine whether

a special substance existed in the vaporous atmosphere of a star, had to compare the spectrum of the star directly with the spectrum of the substance. In other words, he had first to turn his telescope upon the star with such precision that the image of the star should fall on the fine slit of the spectroscope (and be kept there by clock motion, driving the telescope throughout the operation), and the light of the star being then sifted out by the action of the prisms in the spectroscope, so as to form a rainbow-tinted streak or spectrum crossed by dark lines where certain tints are missing (on account of special absorptive action in the vaporous atmos-

sphere of the star), the observer had to bring into the same field of view, and into precisely corresponding position, by the action of the same spectroscope, the bright line spectrum of whatever substance he wished to deal with. If the bright lines forming the spectrum of magnesium, or sodium, or calcium, or the like, were found to correspond exactly with dark lines or missing tints in the spectrum of the star, then the observer would know that the particular substance giving those bright lines (or more correctly shining with those tints) existed in the atmosphere of the star. But he might very well be in doubt as to the precise accuracy of the coincidences (on which everything depends), or he might not be able to perceive clearly, yet might suspect the existence of one or other of the dark lines necessary to complete the evidence. To make sure he must cause the electric spark producing the spectrum of the substance he is dealing with to flash again and again out of the darkness, wearying the eye by the constant alternation of darkness with bright light. Not a few minutes, but many hours, or even several observing nights, would be required for each observation of the sort; and later, some other observer, with different visual powers, or with instruments of greater or less precision, might throw doubt on the accuracy of the observation, and the whole work might have to be repeated.

Now, all this is changed. A photographic record of the spectrum is taken (hitherto only of the blue, violet, and ultra-violet part, but before long the whole visible spectrum, and parts invisible beyond the red and violet, will doubtless be photographed), and, either at the same time or under precisely the same optical conditions, a photograph of the sun's spectrum (not taken directly from the sun, but either from the twilight sky or from a planet like Venus which reflects pure sunlight): and then the known dark lines in the solar spectrum can be compared directly with the dark lines in the spectrum of the star. If doubt be afterward thrown on the result, the slips with the recorded photographic spectra are always available for comparison. And thus star after star can be added to the list of those whose light-record of their vaporous

structure has been obtained. Fainter and fainter stars can be dealt with as the sensitive plates are made more delicate, or as the accuracy of the clock-driving of telescopes is increased, until the photographic plate may be exposed during the whole of any clear night to receive the light impressions from a star. Already Dr. Draper has obtained records of the spectra of stars of the tenth magnitude—that is, far beyond the range of ordinary vision—though as yet such records of faint stars have not been available for the kind of research we are considering. In fact, they have only been received accidentally, so to speak, when search was being made for something entirely different.

We are not, however, here concerned to consider at any length the methods employed. It is interesting, and will appear more so as we proceed, to note how widely the research we are considering is likely to be extended in the future. But at present we propose chiefly to discuss the most remarkable result which has rewarded the method of spectroscopic inquiry into the stars, whether by ordinary vision or by the use of photographic appliances.

The result to which we refer is the marshalling of the stars into orders, different in color, which spectroscopic analysis shows to be due to difference in present physical constitution, which again analogical reasoning shows to be due to difference in age.

Take first the bluish-white stars of which Sirius, Vega, Altair, and others are typical.

In the first place, we note that the only star of this order whose distance has been even roughly determined (Alpha Centauri in the southern hemisphere is a yellowish-white star) is demonstrably a much larger orb than our own sun, if the quantity of light which a sun emits is any indication of size. Sirius is so remote that the motion of the earth in her vast orbit, 185 million miles in diameter, scarcely at all affects the apparent position of that brilliant star. Very exact and careful study of the star indicates apparent motion (due to the earth's real motion) in a tiny ellipse, the larger axis of which is roughly about the 400th part of the moon's apparent diameter—the nature of the observation being such that this

larger axis *may* be as much as the 3000th or as little as the 5000th part of the moon's apparent diameter, or even lie outside those limits. Taking the mean of the best measurements, a distance is inferred so great that our sun's light, were he placed at that distance, would be reduced to about the 50th part of the apparent lustre of a leading first-magnitude star, or, roughly, to about the 200th part of the lustre of Sirius. Hence it would follow that if an average square mile of the surface of Sirius emits as much light as an average square mile of the sun's surface, the surface of Sirius must be 200 times as large as the surface of our sun. If so, the diameter of Sirius would be about 14 times the diameter of the sun (for 14 times 14 are 196), and his volume about 2800 times, or in round numbers 3000 times the volume of the sun. We can hardly suppose that this volume, or probably his mass, is less than a thousand times larger than the sun's.

Of other stars of the bluish-white order we know less, with precision, but we do know so much as this, that all the brighter ones *must* be, and therefore even the fainter ones *probably* are, very much larger than the sun. For though the actual distance of Vega and Altair, for example, cannot be determined, it is because they are so far away that attempts at measurement fail. If either of them were as near as Sirius, its distance would be as readily determinable. But the measures which, applied to Sirius, give a recognizable result, fail utterly when applied to Vega and Altair. It is true, results are published in our books of astronomy which if accepted would indicate a measured distance in the case of Vega, but it is utterly untrustworthy. Vega and Altair lie beyond the range of the best methods of measurement yet invented. But noting that their lustre still exceeds many times that which the sun would have if removed to the distance of Sirius, we infer safely that the lustre of these two bluish-white stars exceeds in yet greater degree that which our sun would have if removed to their distance: in what precise degree we cannot determine, but we may confidently say that these stars are very much larger than our own sun. The same argument applies to all the brighter stars of

the bluish-white kind. And having thus inferred that so many stars of this color exceed our sun in size, it is a highly probable inference that all do (the fainter being simply very much farther away), if it shall appear that all the stars of this kind possess certain physical characteristics which stars of other colors do not possess. For it is a fair inference that because all bluish white stars yet examined possess such characteristics, so will others of the same color which may hereafter be examined; and again, that because no other stars have yet been found to possess these characteristics but stars of a bluish-white color, therefore others which may hereafter be found to possess them will also be of this color; it is clearly as fair an inference to assume that the great size characterizing all the stars of this kind yet tested or testable in this respect is a characteristic also of the class.

Now it appears from direct spectroscopic study of these stars, as well as from their spectra, that they differ in physical structure in marked manner and degree from our sun. The lines which indicate the presence of relatively cool hydrogen—hydrogen exerting an absorptive action on the light from the central glowing mass—in these stars, are always much stronger and broader than in the spectrum of our sun. I do not dwell here on a question which has arisen as to a certain line which appears to be common both to calcium and hydrogen, and has therefore given rise to certain discussions (running, in my opinion, far in advance of the evidence) as to the identity of some element common to both calcium and hydrogen, which of course, according to that view, would neither of them be elements. I prefer now to consider only the broad lines of distinction between the various orders of stars, and not to discuss *minutiae* which may hereafter very probably be shown to be altogether without significance.*

Now the great breadth and strength

* Just as Professor Young, by using spectrosopes of great dispersive power and showing lines to be diverse which with inferior instruments had seemed identical, has entirely destroyed the imagined validity of evidence on which certain very bold assumptions as to the elementary constitution of matter had been based.

of the hydrogen lines in these monstrous suns (suns exceeding our sun much as our sun exceeds Jupiter and Saturn, and as these planets exceed our earth, Venus, and Mars) may be taken safely enough to indicate the existence of much deeper and denser atmospheres of relatively cool hydrogen around those suns than exist around our own. Yet the intense brightness and whiteness of those suns serve to show that such deep envelopes of relatively cool hydrogen are by no means due to the longer continuance of a process of cooling. On the contrary, it seems clear that it is the greater intensity of the radiation of those parts of the stars' light which form the continuous background of the spectrum, and not the greater intensity of the absorptive action of the hydrogen, which really occasions these lines to appear broad and dark. The hydrogen itself, which, owing to the great lightness of this element under the same conditions of temperature and pressure, extends high above the other gaseous envelopes, forming the outer parts of these intensely bright white stars, is no doubt itself intensely hot. Most probably it is far hotter than those hydrogen layers which cause the finer absorptive lines of hydrogen in the spectrum of our own sun and his fellows. But so much more intense is the light radiated from the glowing mass within (mostly from glowing gas at great pressure, I think) that the absorptive lines of hydrogen appear by contrast very broad and very strong.

On this view we may fairly assume that the darkness of the hydrogen lines is a characteristic of stars at a much higher temperature than our sun and suns of his class. And finding this characteristic associated with some stars which are certainly of enormous size, and with other stars which *may* be thus exceptionally large, we are led to infer that this association is not accidental—that *all* stars having these very strong hydrogen lines are very much larger than our own sun.

Whether we can accept this inference or not will depend very much on whether we can regard the youth of a sun as in any way correlated with the sun's size. The reasoning which I have applied to planets—the justice of which reasoning seems confirmed by

the accordance of the results to which it leads with observed facts—may be applied also to the stars. I have shown that if two planets of different size are at any given epoch in the same stage of planetary life—that is, at the same temperature—the smaller will presently pass into a more advanced stage than the larger will have attained to, because it will part with its heat at a relatively greater rate. Supposing, for instance, the diameter of the larger planet is twice as great as that of the smaller, and therefore the surface four times as great, and the volume (or mass, if the planets are of nearly the same density) eight times as great as that of the other, it is evident that as the quantity of heat is proportional to the quantity of matter, or eight times as great in the larger planet when the two are at the same temperature, while the rate of emission, being proportional to the surface, is but four times as great, the supply of heat in the larger will last twice as long as the smaller supply of heat in the smaller planet. Now, as I have said, this reasoning applies equally to the stars; and if we could only be assured that at any given time two stars of unequal size were in exactly the same stage of stellar life, we should be sure that at any much later stage the smaller star would be much more advanced in stellar life than the larger.

The difficulty arises here, however, that we have no means of proving, but on the contrary strong reason for doubting, whether the stars of our galaxy began their existence of stars at any common time. When we see the various orders of nebulous masses within the galaxy, and note how very different these nebulae seem to be as to condition, while the very existence of true nebulae (many of which we may regard as unformed suns or star clusters) indicates the great diversities of age existing among the occupants of stellar space, we perceive how very unsafe it would be to assume that the stars, simply because they are stars, began their existence as such all at the same or nearly the same time. The contrary is not only far more probable, but to all intents and purposes certain.

All we can safely assume is, that the greater size and mass of a star indicates

the much longer continuance of all the stages of its career, past and to come—that it has been much longer in passing through the inchoate stage, and through its first stages as a formed sun, and that it will be very much longer in passing through all those stages which it has still to go through, than our own sun or other suns of the same class. Looking at such a sun as Sirius, for example, we may believe that at the beginning of its present stage of existence as a bluish-white sun, our sun and Sirius may have both been bluish-white, but that our sun, being very much smaller, has passed onward into the stage when a star shines with yellowish-white lustre, and will perhaps pass onward to the later stages of which we have yet to speak, while Sirius and Vega are still shining as bluish-white stars. But we cannot assume that any small bluish-white star which gives (as many small stars do) the same sort of spectrum as Sirius, is in reality an enormously large sun, another Sirius in fact, shining with the same sort of light because, beginning its existence at about the same epoch, it has taken a much longer time than our sun to reach the same stage of sun life. It may be that a bluish-white star, with strong hydrogen lines in its spectrum, is no larger than our sun, or is even smaller than he is ; but having come into existence as a sun much later, has not reached the same stage of development.

It is important that we should not here fall into an error of the same sort as that which vitiated the earlier reasonings of Sir William Herschel respecting the stellar distances. He regarded the brightness of a star as fairly indicating its distance, assuming all stars to be of the same general order ; later we see a tendency on his part to fall into the opposite extreme, and regard brightness as rather indicating the real size of a star than proximity. Neither inference can in point of fact be relied upon ; some faint stars are large ones very far off ; others are really small stars not farther off, or even nearer, than their fellows.

So it is in the case before us. Some bluish-white suns with spectra indicative of stellar youth are no doubt enormously large orbs, compared with which our sun is little more than as a dwarf compared with a giant ; such suns are young be-

cause they are large ; the stages of their lives are all very much shorter than the corresponding stages of the lives of our sun. But others no doubt of these young suns are really young in years as well as in development ; they are younger than our sun, not because they require longer time intervals for the various stages of their life, but because they began their stellar life later.

It should be noticed that the spectra of these bluish-white stars are not all exactly alike. They are distinguished from each other by the greater or less breadth and diffuseness of the lines of hydrogen, and also by various degrees of strength and visibility of the finer lines. It may possibly be that hereafter, in such distinctions as these, we may be able to recognize evidence as to the size of a star—that, for instance, a large star in passing through the first stage of stellar life may present characteristics always different in certain respects from those presented by smaller orbs in passing through the same stage. If so, we shall have a new means of dealing with the architecture of the heavens ; for, knowing something of the real size of a star in this way, we may infer its distance from its apparent size, and thus place it correctly in position in space, instead of knowing only the direction in which it lies, at some distance unknown.

Pass now to the next order of suns, of which Aldebaran, Capella, and our own sun are examples. "In the spectrum of Aldebaran," says Dr. Huggins, "the lines of hydrogen are reduced to about the proportion they possess in the solar spectrum ; the other lines of the spectrum are no longer fine and difficult to see ; we have in full the triple line of magnesium." I have seen the spectrum of Capella as photographed by Professor Henry Draper of New York, for comparison with the spectrum of the sun, as received after reflection from the surface of Jupiter. Matters were so arranged that the two spectra were of the same strength. Now when these photographs were placed side by side (the corresponding dark lines being brought into the same direction, so that the eye could run along a dark line of Capella into the corresponding dark line of the sun) I found it almost impossible to recognize the slightest difference between

the two spectra. Almost every line in the spectrum of Capella corresponded with a dark line in the spectrum of the sun; in each case the strength of the lines corresponded very closely. Only after a prolonged and close scrutiny could I satisfy myself that one or two lines of the solar spectrum seemed slightly stronger than the corresponding lines in the spectrum of Capella, and in these cases I found that these very lines are known to be slightly strengthened by absorptive action experienced as they pass through the atmosphere of Jupiter. In this case, apart from a slight disturbing influence due to this absorptive action, a comparison was made between our sun and Capella, precisely as from a world travelling round a sun equidistant from these two orbs. The practical identity of the two spectra is the best proof yet afforded of the oneness of constitution (with infinite variety of distribution) throughout our galaxy.

Again, however, we find ourselves confronted by a difficulty akin to that already experienced in dealing with the question of the relative dimensions of the bluish-white stars. Only that, whereas in their case we could only recognize the extreme probability that many stars of that order differ largely in size from Sirius and Vega, we have in the case of stars of the second order not only probable inference of this sort, but proof positive that two at least among the stars of the second order differ exceedingly in size from our own sun.

For although we do not know the actual distance of either Capella or Aldebaran (I disregard utterly all the measurements of Capella's distance which are given in our books of astronomy, or rather I regard these as proving conclusively that Capella lies utterly beyond the range of measurement*), we do

know certainly that our sun placed at the distance of either of these stars would shine with very much less light than either of them. We know that, set beside Alpha Centauri, he would shine with about a third part of the light of that star. Now, Capella shines with almost exactly half the light of Alpha Centauri, and Aldebaran with about three sevenths. Thus our sun set at the distance of Alpha Centauri would shine with about two thirds the lustre of Capella, and about seven ninths the lustre of Aldebaran. But each of these stars is at least five times farther away than Alpha Centauri, or otherwise the persistent efforts made to determine the distance of each must long ere this have been rewarded with more success than astronomers have hitherto attained in this direction. Thus each would look at least twenty-five times as bright as it actually does if removed from its present distance to that of Alpha Centauri. Therefore Capella may fairly be assumed to give about forty times (roughly) as much light as our sun at the same distance, and Aldebaran at least thirty times as much. But in the case of two stars whose spectra are very similar to the spectrum of our sun, we may fairly assume that on (the average) each square mile of surface gives out about the same quantity of light as (on the average) each square mile of the surface of the sun. It would follow on this assumption, which is not a very bold one, that the surface of Capella is about forty times as large as the surface of the sun, and the surface of Aldebaran about thirty times as large—say, for convenience of

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the much longer continuance of all the stages of its career, past and to come—that it has been much longer in passing through the inchoate stage, and through its first stages as a formed sun, and that it will be very much longer in passing through all those stages which it has still to go through, than our own sun or other suns of the same class. Looking at such a sun as Sirius, for example, we may believe that at the beginning of its present stage of existence as a bluish-white sun, our sun and Sirius may have both been bluish-white, but that our sun, being very much smaller, has passed onward into the stage when a star shines with yellowish-white lustre, and will perhaps pass onward to the later stages of which we have yet to speak, while Sirius and Vega are still shining as bluish-white stars. But we cannot assume that any small bluish-white star which gives (as many small stars do) the same sort of spectrum as Sirius, is in reality an enormously large sun, another Sirius in fact, shining with the same sort of light because, beginning its existence at about the same epoch, it has taken a much longer time than our sun to reach the same stage of sun life. It may be that a bluish-white star, with strong hydrogen lines in its spectrum, is no larger than our sun, or is even smaller than he is ; but having come into existence as a sun much later, has not reached the same stage of development.

It is important that we should not here fall into an error of the same sort as that which vitiated the earlier reasonings of Sir William Herschel respecting the stellar distances. He regarded the brightness of a star as fairly indicating its distance, assuming all stars to be of the same general order ; later we see a tendency on his part to fall into the opposite extreme, and regard brightness as rather indicating the real size of a star than proximity. Neither inference can in point of fact be relied upon ; some faint stars are large ones very far off ; others are really small stars not farther off, or even nearer, than their fellows.

So it is in the case before us. Some bluish-white suns with spectra indicative of stellar youth are no doubt enormously large orbs, compared with which our sun is little more than as a dwarf compared with a giant ; such suns are young be-

cause they are large ; the stages of their lives are all very much shorter than the corresponding stages of the lives of our sun. But others no doubt of these young suns are really young in years as well as in development ; they are younger than our sun, not because they require longer time intervals for the various stages of their life, but because they began their stellar life later.

It should be noticed that the spectra of these bluish-white stars are not all exactly alike. They are distinguished from each other by the greater or less breadth and diffuseness of the lines of hydrogen, and also by various degrees of strength and visibility of the finer lines. It may possibly be that hereafter, in such distinctions as these, we may be able to recognize evidence as to the size of a star—that, for instance, a large star in passing through the first stage of stellar life may present characteristics always different in certain respects from those presented by smaller orbs in passing through the same stage. If so, we shall have a new means of dealing with the architecture of the heavens ; for, knowing something of the real size of a star in this way, we may infer its distance from its apparent size, and thus place it correctly in position in space, instead of knowing only the direction in which it lies, at some distance unknown.

Pass now to the next order of suns, of which Aldebaran, Capella, and our own sun are examples. "In the spectrum of Aldebaran," says Dr. Huggins, "the lines of hydrogen are reduced to about the proportion they possess in the solar spectrum ; the other lines of the spectrum are no longer fine and difficult to see ; we have in full the triple line of magnesium." I have seen the spectrum of Capella as photographed by Professor Henry Draper of New York, for comparison with the spectrum of the sun, as received after reflection from the surface of Jupiter. Matters were so arranged that the two spectra were of the same strength. Now when these photographs were placed side by side (the corresponding dark lines being brought into the same direction, so that the eye could run along a dark line of Capella into the corresponding dark line of the sun) I found it almost impossible to recognize the slightest difference between

the two spectra. Almost every line in the spectrum of Capella corresponded with a dark line in the spectrum of the sun ; in each case the strength of the lines corresponded very closely. Only after a prolonged and close scrutiny could I satisfy myself that one or two lines of the solar spectrum seemed slightly stronger than the corresponding lines in the spectrum of Capella, and in these cases I found that these very lines are known to be slightly strengthened by absorptive action experienced as they pass through the atmosphere of Jupiter. In this case, apart from a slight disturbing influence due to this absorptive action, a comparison was made between our sun and Capella, precisely as from a world travelling round a sun equidistant from these two orbs. The practical identity of the two spectra is the best proof yet afforded of the oneness of constitution (with infinite variety of distribution) throughout our galaxy.

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calculation, thirty-six instead of forty in the former case, and twenty-five instead of thirty in the latter. Then it would follow that the diameter of Capella is six times as great, that of Aldebaran five times as great, as the diameter of our sun. Hence the volume of Capella would be (216) times more than 200 times, and the volume of Aldebaran (125 times) more than 100 times our sun's. Of course the calculation is very rough, and a great deal is assumed. Albeit nearly all the assumptions have been such as rather to diminish than to increase our estimate of the size of these seemingly giant suns of our own sun's order. It is certain Capella and Aldebaran are at least five times farther away than the sun—they may be very much farther away even than that. There is no room for doubt about the photometric measurements by which the relative brightness of the sun, Capella, and Aldebaran, at the same distance, has been determined. It may perhaps be doubtful whether the intrinsic brightness of the surface of our sun is so nearly the same as that of the surfaces of Capella and Aldebaran as to leave the estimate we have formed appreciably unaffected by whatever correction may be due to this cause; but be it noticed that we have already made a correction, since we have reduced the estimate of Capella's surface from forty to thirty-six times, and that of Aldebaran's from thirty to twenty-five times, that of the sun's surface.

Now, if Capella really has a diameter six times greater than the sun's, every stage in the cooling of Capella—that is, every stage of this star's life—would probably last about six times as long as the corresponding stage in the lifetime of our sun. For the volume being on this assumption 216 times as great, it would be in that degree that the quantity of heat in Capella, at any the same stage of its existence, would exceed the quantity of heat in the sun, whether we consider actual or potential heat arising from the contraction due to gravity. The heat would pass away from a surface only 36 times greater than that is, not 216 times as fast (which would make the supply last just as long, but at one sixth that rate); therefore the supply would last about six times as long. In the

case of Aldebaran the supply for each stage of star-cooling would last about five times as long. These numbers are, of course, very far from exactness; but they suffice to show that the lifetime of one star of a given class or order may exceed very much in duration that of another star of the same kind.

We come next to the stars or suns of the third order, whose light, instead of being bluish-white like that of Sirius or Vega, or yellowish white like that of Capella or of our sun, is of an orange-yellow tint. The best representative of this class of sun is Arcturus, whose spectrum is somewhat like that of our own sun, but presents characteristic peculiarities, which the late Father Secchi regarded as corresponding to what we might expect in a sun like ours at a time when a great number of spots were present on its surface. If we adopt this opinion, we should regard Arcturus as a permanently spotted sun. Dr. Huggins merely remarks of Arcturus that it is a star of another order, which includes the solar type, but the star seems to be removed farther than the sun is in the order of change from the typical form as we meet it in Vega and Sirius. Here the typical lines are no longer present as a strong group. The line which has been regarded as belonging to both calcium and hydrogen is stronger, relatively, than in the solar spectrum. The spectrum of this star is crowded with fine lines, and in the visible part resembles the solar spectrum, but in the ultraviolet part, which hitherto alone photography has recorded, the lines are more intense than in the solar spectrum, and are differently grouped.

The inference from the observed peculiarities of the spectrum of the star Arcturus is that this is a sun further advanced in sun-life than our own.

Now, here again the question as to size is answered in a way suggesting that there is no present correlation between the size of a star and its age or state of development. So far as size is concerned, Arcturus, if it had begun its existence as a sun at the same time as our own sun, should have been much less advanced than he is. For Arcturus is half as bright again as Capella, yet lies at least as far away as that distance which we have assigned as the least

possible distance for Capella. Therefore all that we have said about Capella and Aldebaran applies with increased force to Arcturus. His surface is probably at least sixty or seventy times as large as the sun's, even if we assume that the intrinsic brightness of the surface of this older star is equal to that of our sun's surface; but it is probably less, in which case to account for the great amount of light emitted by Arcturus we must assume the surface to be greater in proportion as its intrinsic brilliancy is less. Even with a surface only sixty-four times as great as the sun's, Arcturus would have a diameter exceeding his eight times, and a volume exceeding his nearly five hundred times. Arcturus would therefore be a sun marvellously surpassing our own in volume, and presumably in mass also. We may infer, reasonably enough, that the family of worlds over which this mighty orb bears sway surpasses in like degree in dignity and importance that ruled over by our own sun.

In passing, let it be noticed that all these considerations as to the great size of many, if not most, of the stars of the first order (the bluish-white suns), of some at any rate of the stars of the second order (the yellowish-white suns), and of one at least of the stars of the third order the (orange-yellow suns) are enormously, one may say overwhelmingly, strengthened, if we accept Dr. Siemens' view of the exhaustion of each sun's rays as they do their work in space. For in that case all the stars must emit very much more light than we have been assuming that they do. In fact, if that theory were true, the mere visibility of a star at the distance of Sirius would imply that the sun so seen across depths of space exceeding at least a million times the entire span of the earth's orbit, was an orb compared with which our sun is less than the tiniest meteor compared with the mighty mass of our earth. For our own sun, if he does anything like the work assigned him by Dr. Siemens, must exhaust all his light-giving as well as heat-giving energies long before he can extend the news of his existence as a sun even to the distance of the nearest star. Yet there in the star depths are ten thousand suns which do much more

than merely make themselves visible athwart such distances, some of them even giving hundreds of times as much light as our sun would give if—without any such exhaustion of his rays in space—he shone from beyond such distances as separate those orbs from us.

But apart from all such questions as these, there is to me something most impressive in the thought of what, as thus interpreted by spectrum analysis, the heavens reveal to us. Of old it was known that one star differs from another in glory—meaning perhaps in brightness only. In color, too, it had been seen that the stars are unlike. But who would have ventured to surmise that in real size the suns that people space are so unlike? Who could have supposed that any instruments men could devise would enable us to judge which are the younger, which the older stars? Yet even the most cautious among our astronomical physicists, Dr. Huggins, the ablest of our spectroscopists, accepts this as the only reasonable solution of the observed differences in-star spectra. "We cannot resist," he says, "the feeling that in Arcturus" (and the other stars of that class) "we have to do with a star which has departed farther from the condition in which Vega now is than our sun has yet done. The question presents itself, Have we before us stars of permanently different orders, or have we to do with some of the life-changes through which all stars pass? Does the sun's position, somewhere before Arcturus in the order of change, indicate also his relative age? On these points we know nothing certainly." "If I may give some play to the scientific use of the imagination," he added, addressing his audience at the Royal Institution, "I would ask you to imagine an inhabitant from some remote part of the universe, seeing for the first time an old man with white hair and wrinkled brow, to ask, 'Was he born thus?' the answer would be, 'No; in this child, this youth, this man of mature age, you see some of the life-changes through which the old man has passed.' So, giving play to the scientific imagination, there may have been a time when a photograph of the solar spectrum would have presented the typical lines only which are still in Vega. At a subsequent period these

would have been narrower and more defined, and other lines would have made their appearance. And if we allow this scientific imagination to project these Royal Institution Friday evenings into the far future, the lecturer, clad it may be in the skin of a white bear, may have to describe how the spectrum of the then feeble sun has already passed into the class of spectra distinguishing those stars which shine with red light."

It is evident that our great astronomical physicist recognizes no perpetual energy in suns, even in the mightiest. He sees them passing downward along the scale of stellar being, gradually parting with more and more of their stored-up energies, not recruiting themselves with their own energies stored up after doing their full work! And in this, with all respect to an eminent practical physicist, he shows himself more philosophical as well as more practical. He recognizes that the same law which affects the small and the short-lived, the large and the long-lived must also submit to. Practically eternal though to our conceptions the duration of each stage of a sun's life may be, each such stage is nevertheless

less finite, even though a sun exceed our own a million times in volume or in mass. The heavens present to us a scene of tremendous—nay, of inconceivable energy. Suns upon suns, to millions, to tens of millions, to hundreds, even to thousands of millions, occupy space around us. In every stage of stellar life they are at work, illumining, heating, and guiding the systems which circle around them. Beyond the limits of the most powerful telescope lie thousands of millions more, repeating the same story of seemingly infinite energy, seemingly endless duration. Yet each one of those orbs, and therefore the sum of all, or the universe as we know it, tends to an end—an end which may be, however, but the beginning of new forms of existence, while the gaseous nebulae, now mere masses of vapor, may then have entered on sun-life, to carry on the same story, to teach the same lesson, that though each order of created things tends onward to an end, yet to such orders we can trace no visible limit—"End is there none to the universe of God; lo, also, there is no beginning."—*Cornhill Magazine.*

Eἰς ἑκεῖνην.

BY THE LATE CHARLES BADHAM.

SWEET spirit, from that semblance free
Of frail mortality, see how
My widowed heart divorced from love and rest,
Unblessing and unblessed,
Still mourns for thee.
My couch of silence hast thou visited?
There lies the head
That never ached, but hands of thine,
With looks of love and touch divine,
Its pillow spread;
There beats the heart so lonely and unfriended
That if on joy depended
Its pulse of life, that ministry
With thy last sigh had ceased to be
In grief's forlorn captivity,
With hope unblended,
That left me none beloved, loved by none,
Now thou art gone,
To pains unshared, unsharing,
Of every good despairing,
Unsoothed, alone!

—*Temple Bar.*

A LESSON ON DEMOCRACY.*

BY JAMES ANTHONY FROUDE.

You have invited me to be the president of your Institute for the present year. I look over the list of those who have preceded me in this office, and I see the names of men supremely distinguished in science and literature, and I naturally feel somewhat embarrassed in the position in which I stand. In most respects my office is a sinecure—a great honor to me, but an honor which carries no authority with it. I have nothing to do with the working of the Institute; I do not know in any detail the subjects with which you are occupied. Personally you are almost all strangers to me, but you expect me to make you an address; and an address, if it is not to be a mere vague declamation, implies something in common between the speaker and his audience. I am myself a mere literary student; you are busy men, busy in one of the great centres of the practical and political life of England. What topic am I to select on which I can speak and you will care to listen to me?

You wish me, I presume, to take some historical subject. But history is the record of all that men have thought and said and done and made of themselves since the beginning of time, and that is a very wide field indeed. I might take if I liked some critical or striking epoch in English annals and talk about that for an hour or two, but I do not see of what use it would be. A lecture may be worth something if it is addressed to a class who are themselves studying the subject of it. It is of no value at all when it is a mere display of the lecturer's opinions on a subject of which his hearers have no particular knowledge and do not care to acquire any. They cannot judge whether he is talking sense or nonsense, and it is of no consequence to them whether it be one or the other. If he can hold their attention they will listen to what he has to say; but they will go away and forget all about it—perhaps the wisest thing that they can do.

I do not wish to waste your time or my own either, and, therefore, having the world before me, I have considered what is the greatest common interest which you and I have together. I find it in the relation in which we all stand together at this time to our common country. When John Knox once spoke freely to Queen Mary about some of her doings in Scotland, the Queen asked him who he was, that he dared to speak thus to his sovereign. Knox answered, "I am a plain citizen of this commonwealth, madam." We are all citizens of this English commonwealth, but we, the people of England, are also in some sense now the sovereigns of England. It has been governed by kings; it has been governed by an aristocracy; it is now governed by the people. What the people say shall be done will be done; what the people say shall be the law will be the law; and you in particular in this town have not the least to say in the matter. The destinies of this great empire are now wholly in the hands of the nation itself, and we all collectively will have to answer to those who come after us for the condition to which we bring it.

I have chosen, therefore, for our subject on this occasion the fortunes of some other commonwealths, which passed through the same stages which we have passed through, and arrived at the same result, where privilege of class was extinguished, where all the citizens had equal political rights, and the power was vested in the numerical majority. We have their history before us; we can see how they rose, how they acted, and to what end they came. There is no special virtue in the form of a constitution, as if any constitution could be devised which would enable a country to go on mechanically when once the form was completed. Nations, like individuals, succeed or fail as they manage their affairs well or ill. Wise action depends on knowledge, and a chart which shows the rocks and shoals where other free communities have gone to pieces ought to be welcome to all of us.

* Address to the Institute, Birmingham, November 3d, 1882.

You have all heard, at least, in a general way, of Athens and Sparta, and Thebes and Argos, and such places. They were the leading commonwealths among a multitude of independent states—states which were scattered over the whole of continental Greece, over the islands of the Archipelago, along the coasts of Asia Minor, on the coasts of Italy and Sicily, and even North Africa. Each, as a rule, was independent of every other; each had its own constitution, and made its own wars and revolutions exactly as it pleased. The Hellenic race had the same passion for freedom which we have. These separate centres of political and intellectual life stimulated each others emulation; and small as the whole race was, according to modern notions, they made so much of themselves that the names of their illustrious men shine like fixed stars in the pages of human history. They have left works of art behind them which later sculptors have scarcely approached and have never excelled, and a literature, poetry, philosophy, and history which are the purest intellectual treasures that the world possesses.

Mere spots they were most of them. Birmingham alone would have cut up into half a dozen of them. Five or six thousand families were enough to form an independent community. But we find in their development all the phenomena with which we are familiar on our own larger stage, the same prejudices, the same passions, the same ambitions, the same struggles. They had their privileged classes, who believed that all the world was made for them to enjoy themselves in, and there were the workers outside who thought that they were entitled to a share of the good things, and at last to the whole of them. There were reform bills and revolutions, kingships passing into constitutions, constitutions into democracies, democracies perishing of their own excesses and turning into despots. Such phenomena, recurring in innumerable instances and under all varieties of circumstances, point to tendencies in human nature itself which we may expect to find wherever men of vigorous tempers are gathered into civil society. So like, indeed, was that old Greek world to our modern world, that one is

tempted to believe with Leibnitz that we are but automatons after all, fancying ourselves free, yet going through our transmigrations as surely and with as little volition of our own as an acorn is metamorphosed into an oak or a caterpillar into a butterfly.

It may be asked why the larger grains of quicksilver did not swallow the small, why the stronger of these states did not annex the weak? They were constantly at war with one another. Why did they not follow up their victories by crushing their enemies down and taking their liberties away? The answer is that it was against the genius of a free race. The Greeks during the period of their greatness held that liberty was the parent of everything that is excellent in men, and that each community had an inalienable right to govern itself in its own way. That was one reason. Another was, that they believed that a state which aims at empire will have to pay for it by losing its own liberties. So strongly this was felt that they did not even attempt to keep in subjection their own colonies. Men who had been bred under free institutions desired necessarily to be no less free when they migrated elsewhere. They carried their liberty with them, and insisted on keeping it in its fullest measure; and the parent state was obliged to consent or to violate its own principles. A colony could be held against its will only by military force, and liberty, it was well understood, would have a short shrift at home when it meant tyranny abroad.

Athens only, in the height of her splendor, intoxicated by her great victories at Marathon and Salamis, attempted to form an empire. She constituted herself sovereign of the seas, and forced the island states to be her subjects. It was not the work of her hereditary nobles. It was not the work of ambitious soldiers. It was the work of the democracy led on by enthusiastic orators; and the result of it was, that after fifty years Athenian statesmen had come to believe that right and wrong were only words, and cynically to say so. Athens, the mother city of freedom, roused the genius of freedom itself to take arms against her. She fell after a struggle which stands recorded in the immortal pages of Thucydides. Her em-

pire was torn from her. She was left free under the form of a constitution, but her spine was broken. Her glory and her greatness were gone forever.

Three centuries later another great republic went in for empire. The Roman generals brought under the Eagles half Europe and Asia, the whole of the then civilized world. They conquered it and they kept it ; but to keep it they had to sacrifice their own liberties. If there be any general truth at all established by political experience, it is this : that one free people cannot keep subject to them against their wills other people of the same nature and aspirations as themselves. Kings may govern an empire, aristocracies and oligarchies may govern an empire, and the dependent states will submit because they are no worse treated than their fellow-subjects at home. But free nations are bound to respect in others the rights which they claim for themselves, and for a free nation to conquer another and hold it fast, and then tell it to govern itself under the forms of freedom in a way that shall be satisfactory to the conqueror, is a problem of which no statesman has yet found a solution, and, I imagine, never will. The experiment can only end in one of two ways. Either the subject countries will be let go, or the conquering country itself will fall under the same authority as its dominions.

The smaller Greek states then remained, many of them for centuries, each working out for itself the conditions of political existence. It would be merely confusing if I was to follow the history of them in detail ; and there is no necessity for it. They were studied by one of the acutest men who ever wrote on political subjects. Aristotle surveyed them all, and drew from the examination certain principles on government in general, and on the dangers to which democratic states in particular were exposed. They were then very near their extinction. Their best days were over. Aristotle did not write as a patriot or as a prophet. He wrote as a scientific observer with the phenomena complete in his hands.

The mother states, like Athens and Thebes and Sparta, and many others, had begun as monarchies. According

to the story, their first kings had been the sons of the Olympian gods. They had been men at any rate of energy and genius, and young communities, before laws and customs had had time to grow, necessarily remained under some capable leader or leaders. When a king died, his son or his brother was his natural successor. Sensible men wished to avoid disputes, and inheritance was a rough-and-ready rule which came first to hand. It was true that the sons of the sons of gods were only grandsons of gods, and the virtue might become attenuated. But the lineage was good. Children of illustrious fathers had a noble example before them and had been nobly trained, and if they lost the confidence of the people they soon lost their thrones. The early princes were indeed like our own Plantagenets, rather the first among their peers than absolute sovereigns, and they continued to rule because they could do all that their subjects could do better than they. Homer's Ulysses was king of Ithaca, a little island no bigger than Jersey. Yet Ulysses filled the world with his name. He was first in battle first in council, first as an orator, first in the athletic games. And this was not all. He was seaman, carpenter and shipwright, and husbandman. "Put me in a fallow with a yoke of oxen before me," he said ; "put me in a meadow with a scythe when the hay is ready for cutting, and let me see the man in Greece that can do a better day's work than I." The most high-spirited people saw no shame in being ruled by such chiefs as Ulysses, and while the breed lasted they did not ask for constitutions.

But the breed could not last forever. Not every Ulysses had a Telemachus for a son. To be born to high place may make one man into a hero, but it may make another into a blockhead or a profligate. You may remember Dr. Johnson's defence of primogeniture that it made but one fool in a family. In due time the sovereignty would fall to some prince who was vicious and incapable ; but meanwhile, when great men died they did not die altogether ; they left their minds behind them in the form of laws. In the place of personal power there grew up the power of laws, of which the whole community was the

guardian. Kings and nobles then became less necessary ; the people were able to manage much for themselves ; and as all movements tend to continue till checked by some external form, from claiming much the people claimed the whole, and the power of the state came to rest in the votes of the majority of the citizens. But the process did not rest there. Democracies go on the principle that all men are equal ; and this is not true, for nature has made them unequal. Some are wise, some foolish, some are brave, some are cowards, some are industrious, some idle, some weak, some determined and strong. The superior nature leads the inferior. The inferior feels the difference and cannot help itself. Thus parties formed under ambitious chiefs, parties turned to factions, and factions to sedition. Law lost its authority, and as an escape from anarchy the boldest popular leaders became dictators and despots.

Thus in a hundred instances the familiar forms of political transformations were present before Aristotle's eyes like a set of specimens on a dissecting table. To give his inquiry method, he began with asking for what object political constitutions existed. "Man in society," he says, "is the best of animals. Man in a state of nature is the worst, for he has no law but his own will ; his appetites are unbounded, and his superior faculty makes him the more able to gratify them. The object of civil society, therefore, is to cultivate the best part of man's nature, and to raise him from being a savage into a moral and intellectual being. If men are to live in society they must consider others as well as themselves. Rules must be laid down for their conduct, and all are not equally able to judge what those rules should be. Some see clearer than others what ought or ought not to be done. Some are better natured than others, and are more ready to do right when it is shown them. Naturally, therefore, the ignorant and the bad must be guided in some way or other by those who are wiser and better than themselves."

But then the question rises who are the wise and who are the good. How are they to be discovered and placed in authority ? Like seeks to like. The wise are the minority ; and the majority

are not likely to distinguish them. Nature offers her help. In the act of forming they have been led by some superior person to begin with. The high-bred horse produces the high-bred colt. When the father goes they take his son, thinking it probable that the virtue will be inherited. And, in fact, Aristotle says this is so in a certain measure, or the principle of inheritance would never have been submitted to as it has been. Blood does go for much, and breeding goes for much. Very brilliant qualities are often transmitted through several generations. Unfortunately, though nature does her best she sometimes fails. The heir may be a fool, or the line may degenerate altogether. Some other rule has to be looked for. Inheritance breaks down, and then men look to *wealth*. They choose those who have great possessions. Rich men have managed their own affairs well. It may be presumed that they will manage the affairs of the commonwealth well. They can attend to them, for they are not obliged to work. They will be above corruption, for they have enough already, and can afford to be impartial.

So men think, says Aristotle, but they find they are mistaken. Rich men never believe they have enough, and if you give them power they will use it for their own advantage. The means by which wealth is accumulated do not always point to the best kind of men, and often indicate the worst. Or, again, it may be inherited, and so indicate no fitness at all. A plutocracy, in fact, has all the faults of an aristocracy and none of its merits. To make political superiority a reward of money, is to set the whole community on making money as the first business of life, and thus demoralize every one.

What is to be done, then, Aristotle asks. Where is wisdom to be found and what is the place of understanding ? If, he says, any man or set of men were distinctly and visibly superior to the rest in intellect and character, so that there could be no comparison, such man, or men, as the matter of course, would rule the rest. Or, again, if there were any distinctly stronger than the rest, they would rule, because there would be nothing to prevent them. The hares and rabbits, he says, once petitioned the

lions for equality of suffrage. The lions told them they must wait till their teeth and claws were grown. The barons at Runnymede, who forced Magna Charta out of King John, would have given the English people much the same answer. We talk of rights; but rights are abstract and the world is practical. There are only so many concrete rights in the world as there is power to enforce. You may say that men have a right to justice because they cannot be governed without some degree of it; but all have not a right to a share in the government till they are strong enough to insist upon their share, and what that share is to be depends on circumstances and on their own temperament. Warlike races whose business lies in fighting prefer to be under a chief. So do people who have warlike neighbors and are liable to invasion. The Israelites asked for a king, because they suffered from Philistines and Amalekites. Our colony of Natal refuses to be responsible for itself because of Cetewayo and the Zulus. The essential thing, Aristotle says, is that the government, whatever it is, shall be of a kind which possesses the confidence of the people. In average times, however, hard as the problem may be of finding out the ablest man, impossible as it may be to do it completely well, Aristotle's decided opinion was that countries ought to succeed the best, the level of life and character was likely to be higher, and the people happiest and best satisfied, where they made their own laws and themselves elected their own officers. Why then was it that all Greece was strewed with the wrecks of free constitutions? It was in part, he said, because the people when they obtained power had been in too great a hurry to alter their laws. They had assumed that laws were likely to be unfair which had come down to them from princes and nobles. They had not seen that, while the first condition of stability in a free constitution was that all ranks should be equally subject to law, law depended for its observance on custom and reverence; and to familiarize men with the idea that it could be easily changed, was to break the back of its authority. All men agreed that the best and wisest ought to rule. The law was but the

accumulated wisdom of the ablest men of many generations. It had no force save what it derived from the consent or respect of those who lived under it. It was not like a law of nature, which would enforce itself. It might need amending, but even real improvements did more harm than good if they shook the feeling of prescriptive reverence. In art and sciences new inventions might be adopted immediately. In politics, where so much depended on custom, the changes ought to be as few as possible, and always to be undertaken reluctantly.

From this it might be inferred that Aristotle was a Conservative, but he was true to the central principles of Liberalism, and he refused to admit that free constitutions had failed from the cause generally alleged to explain it. In self-governed states the power is with the numerical majority. It was said then, and it has been said in our time, that in every community the fools are the majority. Dion Cassius, the historian, speaking of the fall of the Roman Republic, says that the change to the Empire was necessarily a change for the better, because the majority of people were always incapable of judging right even by accident; whereas the gods did occasionally send a wise emperor, though, he admitted, not very often. The objection would perhaps be fatal if the fools always combined. Happily there are fools on both sides in politics, and it is a special characteristic of a fool that he generally chooses to have an opinion of his own. He likes to differ from his neighbor, to show his originality, and thus the agreement which would be dangerous is made impossible. It is true that there are circumstances which may make a whole population go mad together. There is such a thing as what the Germans call *Schwärmerey*, enthusiasm as we translate it, but it means "swarming," swarming as bees do, moving in a great wild mass together, they know not whither. And then come those revolutionary excesses which bring disgrace upon popular governments. But these cases are rare. Kings, and even infallible popes, have been also occasionally mad; and exceptions prove nothing. Aristotle defends the judgment of the majority as likely to be on the whole

more right than that of any individual person. A man may be very clever, very wise, wiser a great deal than any ONE of the mass of the people. But he may not be wiser than the whole of the rest collectively. The one wise man will have his prejudices and his vanities, and in large numbers prejudices and vanities neutralize one another. Aristotle says, and it is a very true observation, that the public are better judges of works of art and literature than artists and men of letters themselves. Artists and men of letters are sometimes jealous, sometimes narrow-minded. The public are impartial, and come to a better conclusion. The rule is not universal. Physicians can tell best of the merits of other physicians. Scientific men only can measure properly the character of scientific theories, because the outside public have not the means of forming an opinion. But even in such cases personal feeling occasionally intrudes, and the public, if fairly educated, are seldom far wrong in their verdicts. And, again, Aristotle observes that a man who lives in a house knows its merits better than the architect; and the guest at a dinner party can tell when a dish is well dressed better than the cook.

This is quite true, and it is a truth of the highest importance. It is a fact that in my own profession, for instance, the world is a better judge of literary merit than authors or critics. Shakespeare stands as high above all his contemporaries as the oak of the forest above the garden evergreens. But it was the world which found it out. Shakespeare's brother poets were not conscious of any steep difference between him and them. Ben Jonson stands next to Shakespeare, and says he loved him on this side idolatry as much as any man. But when it was said that Shakespeare had never blotted a line, Ben Jonson wished that he had blotted a thousand; and perhaps at the bottom of his mind was of opinion that if every one had his due there was another fellow that could do as well as the player from Stratford.

There was one point, however, which Aristotle did not mention. He was writing only about small states. It never occurred to him that great nations could be self-governed, and that

actions of immense world-wide consequence could turn on the sudden impulse of millions of voters. He was speaking of general tendencies, and if these could be trusted he was satisfied. But for the world to form a right judgment, you must allow the world time. Even in literature the world will often run after a Will-o'-the-wisp at its first appearance. Immediate popularities are almost always short-lived. The highest fame is of slowest growth, and writers who have been ultimately recognized as the wisest of their kind have been received when they began with indifference and contempt.

In literature this is of little consequence. A good book can wait. The world may run after sugar and syrup, and get no worse harm than an indigestion. But in politics time is just what cannot be granted. Politics are immediate and practical. A crisis rises, measures are proposed which will bring boundless consequences after them. Laws are to be passed or repealed, conquests undertaken or abandoned, institutions abolished or set up. Masses of people will fly at such things in excitement, in wild hope, in the curious confidence which each generation of us always feels in its own judgment. Under such conditions popular impulse is quite as likely to be wrong in politics as about the merits of a new novel, while the results of being wrong may be very serious indeed. Give the people time, and all will be well; but time is often the very thing which circumstances will not allow them, or which they will not allow to themselves.

People talked in Aristotle's time, and they talk now, as if the voice of a majority on any given occasion was, or ought to be, decisive, and could not be wrong. And yet it has been often observed that all the great beneficial movements among mankind have been the work of determined minorities. When the matter in question can wait, the minority trusts to reason and argument to bring the majority over to its side. But sometimes it will not wait. The Catholics were in a large majority in the Low Countries in the sixteenth century, and they wanted to compel the Protestants to go to Mass. The Protestants would not go to Mass. They fought for forty

years, and won their liberty with swords in their hands. There is no divine right in majorities. No voting, though all mankind were unanimous, will make right out of wrong ; and voting is only a rough-and-ready means of finding what it is most convenient to do at a given moment. You hear it said that the source of power is the will of the people, that men must have themselves consented to the laws by which they are to be governed, with other such conventional forms of speech. I humbly submit that such expressions *are* conventional and nothing else. It has happened to me, as it has happened to most of us, to have been in the minority on some occasions in my life. Money, for instance, has been voted for wars, the Crimean war for instance, which I abhorred. I paid because I was obliged. I did not consent. I objected to the uttermost of my power, and I submitted only to superior force.

There is but one ultimate *divine right*, and that is the thing which on any occasion ought to be done. There is a right way of doing a thing and a wrong way, from the cooking a mutton-chop to the guiding an empire ; and the opinion of a majority, provided the people are of fair intelligence and character and courage, is an indication where the right lies ; but that is all—an indication only, not a proof ; and in extreme cases other methods have to be adopted. In fact, whether we like it or not, the voice which at any given moment always decides is the voice of those who are at that moment the strongest. The universe is so constructed that it must be so ; whether the decision be right or wrong, there is no appeal from it till the balance of strength is altered. In the Greek republics, as in modern Europe and America, a majority of the people was presumed to be the strongest. The balance of force was assumed to lie with the greater number without trying the question by force. But it was not so between the lions and the hares and rabbits. It was not so between the Greeks and Asiatics. One Greek in the field equalled ten Asiatics. He was not likely to give the Asiatic an equal vote with him.

And when any great question rises even in the most advanced community, any

question which touches the heart and conscience of men, as it was with those poor Dutchmen that I spoke of, the same difference is produced by superior constancy, by superior courage, by readiness to die rather than submit to what is false or unjust ; and in such cases minorities of brave men have carried their point against the majority by force, trusting to time to acquit them, and so I believe they will continue to do as long as there is any worth in human nature. The army which made Oliver Cromwell Protector represented but a small fraction of the English nation counted by heads. If the vote could be taken now, the English nation would perhaps still be found equally unfavorable to him. Yet Cromwell is slowly taking his place in the estimate of the intelligent part of mankind as one of the very greatest and best Englishmen that ever lived.

But notwithstanding objections, Aristotle remained of opinion that government by a majority of votes was on the whole the happiest and most secure. No adjustment of human affairs will work perfectly and under all circumstances. If nature had provided any such arrangement, it would have been discovered long ago, and we should all have gone to sleep. No form of government will save us from our own faults. If the commonwealth is to prosper, we have each our own parts to play. It is the continual struggle, the continual necessity to watch our own lives, which gives spirit and force to human existence. And this Aristotle saw. He did not condemn monarchies ; he did not condemn aristocracies. Under either of these forms a brave, law-abiding people might be contented and become great. The government of a nation by itself had its dangers also, and might degenerate into mob rule and anarchy. Majorities might go wrong, being composed of fallible human beings. But taking things for all in all, the national spirit was likely to rise higher, the laws were likely to be more impartial, and to be more impartially executed, when the people were their own legislators and chose their own officers. Decidedly that state ought to be in its happiest condition when all citizens had equal rights, when there was no privilege

either of birth or wealth, and each man could rise to any condition for which nature and industry had qualified him.

Why was it, then, that all popular governments were so short-lived? Why was it that popular constitutions seemed to expand naturally in the direction of equality?

"Freedom broadening slowly down
From precedent to precedent,"

till the last links of privilege were broken; yet only to be as the blossoming of the aloe, the splendid development of qualities which had matured under other conditions, as a prelude to eclipse and dissolution. Aristotle himself witnessed the collapse of Grecian liberty under the Macedonian conquest. Had he lived three hundred years later, he would have seen republican Rome sink under the sword of its own army. The people who could win their freedom were unable to keep it. Aristotle's business, like Plato's before him, was to mark out the rocks and shoals where freedom made shipwreck.

After a general sketch of his subject, he reverts to the question with which he sets out: What is the real object of human existence? Is it that as civilization advances men should have more money, more luxury, more of what is called enjoyment? or is it that they should become better men, and have more of what is called virtue? They all admit, in words, that virtue ought to be first. They all, in practice, put enjoyment first, and the freer they are the more they run after enjoyment. But if free government is the best form of government, it requires the best kind of men; it can only succeed when the citizens aim consistently at high and worthy objects. Very mean creatures can be governed tolerably by kings and nobles. Only those who have a high standard of character are able to govern themselves. Unfortunately, he says, the average of men never really recognize this, and never really believe it. They demand freedom, but they mean by freedom the power of doing what they like, and of getting what they like. They will talk finely about the beauty of goodness, but their working faith is in the beauty of money. Give them money, they think, and the rest will follow of itself.

You remember Tennyson's Northern Farmer:

"Tisn't them as has money as breaks into houses and steals,
Them as has coats to their backs and takes their regular meals."

Becky Sharp thought it would be very easy to be good with £5000 a year. The creed is as old as Aristotle's time. The citizens in the Greek states, he says, were entirely persuaded that the essential thing was to have means enough to enjoy life. Courage, temperance, justice, wisdom, were of course very desirable things, and people ought not to be without them; but if they were only well off there was no fear but there would be virtue enough, and accordingly the real subject which occupied every man's mind was how to better his condition.

Now Aristotle knew very well that it was good for men to better their condition. Even Dr Johnson said that they could hardly be more innocently employed than in making money. It is every one's business to provide an honest living for himself and his family. But the question is, *how* they will make it; and if money is the end on which their minds are fixed, they are not particular about the *how*. A man has work to do, and he is bound to do it honestly; yet it sometimes happens that he can make more money by doing it dishonestly. If the first object of existence is to become rich, Aristotle declares that the moral tone of the community is certain to be lowered to the level of the general creed, and discontent will follow, and faction and political corruption, and corruption will make an end of liberty. All may be virtuous, but all cannot be rich. Of money, as of the things which money symbolizes, there is but a limited quantity. If a few have very much, many must have little and some have none; and in a state where rich and poor have equal political power, inequality of wealth is peculiarly hard to bear. It is endured easily under monarchies and aristocracies. The imaginations of men are governed by custom. Whey they see certain of their fellow creatures born to rank and authority, they regard them as a different order of beings. It is no hardship to the laborer to live in a smoky

cabin while the noble lord lives in luxury in a palace. Nature has so ordered it, and there is an end. But it is otherwise when political distinctions are abolished, when the noble lord and the laborer have equal rights and share equally in the government. The laborers may be patient while they do not see their way to a remedy, but the anomaly is galling, and they will indisputably look for a remedy. There is no visible superiority in the lucky beings who have great possessions. They are no better than their fellows morally or mentally—very ordinary bipeds underneath their clothes. Thinking people, especially if their wits are sharpened by what they consider injustice, come to see that all wealth is the produce of somebody's labor; and if rich men, as is often the case, are contented to live in idle indulgence and do nothing to deserve it, the question will rise and will force its way into politics. Why should one man have so much and another so little?

Here Aristotle thought (I am speaking entirely of old times) lay the special danger of free constitutions; and it was the greater from the shape which, under popular governments, politics tended to assume. The politicians divided themselves into two sections—partly from circumstances, partly from natural tendencies in the human character—and the leaders bid one against the other for popular favor. Parties came into being as a matter of course. The people made their way to power by degrees, the privileged classes fighting over each step. Division of feeling remained after privilege was gone. Interests survived of various kinds. There was a difference in the temperament of men: some were slow and cautious, others were enthusiastic and eager for change. The essential causes of difference had ceased, but two traditional parties still contended for supremacy, and as the distinctions grew more unreal, the more bitter faction became. Men of real ability, to whatever party they belonged, thought at heart very much alike. They knew that they could not stand still in a world of change, and they knew that if they let the horses run away there was the risk of an overturn. When there was no longer any question of principle the

contention of parties in the legislature degenerated into a struggle for power, and the chiefs on both sides were driven forward by a fatal necessity to raise new questions, to excite new hopes, and to appeal to passion to decide on problems which required the coolest reason. However able a man was he could not do his ability justice. His duty was to his party—his party first, his country after. Statesmen might see the truth, but they dared not act upon it. They were arranged in opposite camps, each advocating one set of opinions only, and denouncing their rivals as public enemies. They had often to thwart what they knew to be good, and to advocate what they really disapproved. If the result was music, the music was made out of discord. A genuine patriot could only exclaim, "A plague o' both your houses!"

The more unreal the differences, the sharper were the bonds of party discipline. Private judgment had to be laid aside. A man who intended to take a part in public life was forced to be one thing or the other. If he asserted his independence he forfeited confidence, and was held capricious and not to be relied on. Thus he could be only half himself. He had to trust to the opponents whom he was denouncing to supply the checks which he knew to be indispensable. It was as if, having received two eyes from nature, he had been required to see with but one, and instead of walking like a man, to stumble on a single leg.

Under party government, as it is called, public life becomes like a court of justice: the people are the jury, the politicians are advocates who make the best of their own side, and only occasionally and by accident speak their real opinions. Often they know that the right is with their adversary, and they could argue better against themselves. In a court of justice advocacy is in its place, every one knows what it means. Both sides require to be heard by impartial judges, and the opposite views, for the sake of clearness, are brought out by separate speakers. But in politics the cause at stake is the jury's own, and passions are roused, and victory is fought for and the spoils of victory. The chiefs have to throw their hearts

into the quarrel, to rouse their followers by passionate appeals, to fight against the party opposite as if they were conspirators against the public good. And yet it is assumed that on both sides in the state there are men of equal judgment and capacity ready to take the reins if necessary. And therefore a great statesman making a party speech, representing his antagonists as mean and blind and unworthy, can mean but part of what he says. He knows all the while that the very constitution which he admires would cease to exist if there was not an opposition to check and criticise him, and take a turn at the helm. Whether this particular phenomenon existed in Greece in the shape in which we know it, it is impossible to say. Very probably it did, for it rises out of the nature of things. At any rate we see the aristocratic and popular parties continuing to struggle, and alternately getting the power into their hands, till privilege was at an end. Afterward they survived as factions, and resolved themselves at last, as it was mathematically certain that they must do, into the parties of the poor and the rich. As long as privilege lasted the war against property was in abeyance. When the level ground was once won, the new battle began between the few who had much property and the many who had little. Politicians who depended for their existence on having the majority behind them took up the question. Another class of men stepped to the front, and instead of prudent statesmen, the leadership passed to popular orators, who rose to power by inveighing against property. It was a good subject, for they were too sure of a favorable audience; and here, in Aristotle's opinion and Plato's also, was the origin of the misfortunes which overtook the Greek commonwealths.

In the early stages of their existence they had been ruled by the men who could best handle sword and lance; afterward by those who had wisdom and knowledge. Then came those who could speak best on platforms and stir the hearts of the multitude. And it may be asked, Why should not those rule whose speech is most effective? The best speaker is he who is quickest, readiest, best informed, who feels deeply

and can make others feel. Eloquence is the very music of the soul, and every heart vibrates in unison with its enchanting notes. Yes, indeed, it is the greatest of human powers: and in the lips of noble men, and used for noble purposes, it is the best of human powers.

But, like the sword, it is but a weapon. It can be used for truth, it can be used for gilding lies. It can be used by men who are pouring out the inmost convictions of their hearts; it can be used, and with tremendous effect, by men who mean no word that they are saying. In the Greek states the art of oratory became the one avenue to political power. If a man could make a fine speech he had the world at his feet. It was to this, therefore, that every young political aspirant devoted himself. Let him be eloquent, and he wanted no more. Without eloquence, truth, courage, knowledge, character, availed him nothing. There were schools of rhetoric all over Greece. There were professional crammers in rhetoric. Aristotle himself, in his cool scientific way, wrote a treatise upon it. The supreme artists themselves occasionally let out the secret. Demosthenes, perhaps the greatest orator of any age, was asked to explain his mystery. He answered that it lay in acting, and he said it three times—Acting, acting, acting. The speaker was to accompany his words with such gestures, such looks, such inflections of the voice, as would best impress them on his hearers. If he was not speaking truth he was to imitate truth; that is to say, he was to learn the art of the stage player, who counterfeits emotions which he does not personally feel.

When I was in New York, Wendell Phillips gave a lecture there upon oratory. When I was asked what I thought about it, I said he had given a fair account of the business; but he had omitted one requisite, that the orator should have something true to say. I was answered immediately that the art, as an art, had nothing to do with truth. The less truth, the greater the skill needed to produce the effect. Thus the Americans hold oratory in esteem, but not in the highest esteem. They do not make their great speakers into Presidents.

Abraham Lincoln, the best President they have had since Washington, had a sharp wit, but he never talked spread-eagleism. General Grant hardly ever stood on a platform in his life. A Yankee once observed to me, when he had been listening to a famous performer, "A very small piece of soap will make a deal of froth in the mouth."

Indeed, the truly great political orators whose speeches are an heirloom of mankind, the most finished examples of noble feeling perfectly expressed, have rarely understood correctly the circumstances of their time. They felt passionately, but for that reason they could not judge calmly. Demosthenes, whom I named just now, stirred his countrymen with a voice like a trumpet to fight Philip of Macedon. But his countrymen could not fight Philip of Macedon, and fell the harder for trying. If speaking could have saved the Roman republic, it would have been saved by Cicero. His orations against Antony were the finest ever heard in forum or senate. But they were only modulated wind. We have killed the king, he was obliged to say, but the kingdom remains. The mob, who one year made the streets ring with shouts for Cicero, shouted the next as loudly for Augustus. To fight against fact might be very beautiful and noble. The patriot, in his failure, could console himself as Lucan did.

"Victrix causa deis placuit, sed victa Catoni."

Cato could still think that he was more righteous than the gods. But the gods had their way.

Demosthenes, Cicero, Cato, were, however, real men. What they said they meant with all their souls. The professional orators in the Greek republics meant only to make their own fortunes. Most organized beings are troubled with parasites. The parasites of governments, says Aristotle, are "flatterers." The parasite of a monarchy is some smooth-tongued courtier, who winds his way into his master's confidence, panders to his vices, plays on his weaknesses, tells him that he is the wisest of men, and has his reward in wealth and power. The parasite of a democracy, Aristotle also says, is the popular orator. His master is the peo-

ple. He, in turn, plays on the people's weaknesses, panders to the people's passions, speaks to them what will best answer for the present moment, careless of the next; and they, in their delight with him, say, Here is our wisest man, he shall reign over us. A state prospers by wisdom and justice. A state which knew its own interests would have put its flatterer in a sack with a stone in the bottom of it, and have sunk him in the sea. Aristotle, who admired real oratory as much as any man, declares that the tastes of the Greek states for these bastard professors of it, these flatterers of their follies, had been the rock on which their liberties had made shipwreck. Plato was more bitter still. To him, with his keen dialectic insight, the rhetorical art was itself contemptible, and from the powers which it exercised was absolutely horrible. He compares oratory to fashionable cookery. The plain truth was the wholesome loaf or joint. The flowing speech was the dainty side dish, made out of nothing and flavored with poison. He draws a picture of a platform favorite of the Athenian *Δῆμος*, his rounded periods, his metaphors and similes, his starts and pauses, and the fine inflections of his voice; and then exclaims in a passion, "I declare that the meanest honest workman, who can neither write nor spin, is fitter to be trusted with the government than such a fellow as that."

For these orators understood their work. Liberty was a fine word, but words will not feed empty stomachs. Poverty was a fact and wealth was a fact, and the sure road to the people's hearts was to stand before them with platitudes about eternal justice; to ring the changes on inequality, and insist on an equal division of the common inheritance. Here, Aristotle says, in all countries where to make money has been the first object of life, is the Maleström where free constitutions are generally swallowed. It ruined Greece, it ruined Rome. We have seen the same symptoms in Paris in our own time, and wherever it appears it is the sign of a coming catastrophe. Socialistic equality is pretty and becoming in Utopia, but in this world it means taking away from men what they have themselves earned and giving it to

others who have not earned it. Property may seem to be distributed unfairly. It may be often in bad hands and be badly used, but it represents on the whole energy, industry, and prudence. Those who have none are no doubt dissatisfied, but their whole view of the question alters with their first savings.

"Property," said Hartley Coleridge to me once, "I hate the word—because—I have got none of my own."

When laws are passed which touch property, argument turns to violence, and despotism of one kind or another is not far off. The "tyrants" that were so much execrated in Greece had been mostly demagogues who had gone in for communism. Their shrift was generally short, but it lasted long enough to be fatal. When you have cut down a tree you cannot set it up again.

Aristotle makes one very wise observation. All forms of government, he says, should study the interests of those classes which are least represented in them. Kings and nobles should take care of the poor. Democracies should be especially careful how they meddle with property. No free commonwealth ever has been or ever will be of steady continuance which does not secure men in the possession and enjoyment of what they have lawfully made their own.

Philosophers have said that the institution of property is the cause of all crime and all misery. It began, they say, in Paradise. All was perfect there except the fatal prohibition, "Il est défendu à toucher les pommes." Plato made property common in his ideal commonwealth. The first Christians tried the experiment practically. In later days we have heard the cry, "La propriété c'est le vol," and the Tuilleries was burnt down for a light to read the doctrine by. It is like a wave washing against the rocks of human instinct. A division of property, if carried out at all, can be carried out only under an absolute military rule, for free men will not consent to it.

People are misled, says Aristotle, by the word *Freedom*. They think it means that all shall share and share alike; that every one shall do as he pleases, because to do as he does not please is to be a slave; that there shall be no government, or as little govern-

ment as possible. That is to say, they will be either savages or angels, because among imperfect progressive human beings the state of things which they desire cannot be.

So for the third time he reverts to his first question, What is the purpose of life? It is not to have all that we wish, but to become good men. The test of a nation's condition is not its wealth, but the character of the men that it is producing. If as individuals they are manly, and just, and temperate, and wise, they are fit for political freedom, and when they have it they will be able to keep it. The sum of his advice is something like this. Make money if you will, but let it be your second object, not your first. Endeavor first to be good, and money enough will follow. Do not seek for empire. You are free yourselves, respect freedom in others, or it may be that you will lose your own. True freedom means reverence for law. Do not meddle hastily with your laws. Institutions which are slowest to change last the longest. Respect property, and do not run away after fine speeches. Distrust orators. Reflect and reason. First and last remember, that each man's chief business is with himself. If you wish to reform the state, begin at home.

Then at the end he passes to education. Each state, he says, ought to have a system of education adapted to its constitution. Children ought to be brought up in the genius of the country to which they belong; and thus I too am brought round to our present meeting here, to those English Institutes which take up the work of education when the schools leave it. Very briefly I must mention Aristotle's views of education.

Between the old free communities and ours there was one vital difference. The Greeks were slave-owners. All hard manual work was done by *barbarians*, as the Greeks called them, who had been taken in war and sold. Aristotle justifies slavery. A certain quantity of mean work has to be done in this world, he says, and mean-natured men are intended to do it. The slave is improved by being placed under the authority of some one higher than himself, and the superior race has leisure to cultivate its

finer qualities. So manual labor came in Greece to be thought a degradation suited only for beings who were but an improved kind of animal. Even free-men who worked for wages Aristotle placed outside the constitution. A man who sold his skill to others, he regarded as a slave in all but the name.

Leaving work as beneath his notice, Aristotle says that the education of a free citizen in a free commonwealth should be in four subjects : grammar, drawing, music, and gymnastics. Grammar included literature ; drawing and music included art ; and gymnastics what we mean by athletics. He was contemplating evidently, therefore, a set of gentlemen whose time was their own, and who had leisure to cultivate their minds and bodies to the highest perfection. Perhaps he might have found here, if he had looked for it, the explanation of the influences of those dreadful orators.

Those critical and finished intellects were likely enough to over estimate dainty and finely-turned periods. They had time to listen to them, and if they so spent their time we can understand how many of them were poor. St. Paul found the men of Athens occupied only in hearing or telling some new thing. The aspiration of the Greek was to be like the gods of his own Olympus, raised above the petty cares of life ; and however such a life might suit Olympus, it was not wholesome for earth.

Modern England, modern Europe, has been trained on the exactly opposite principle, not that work is degrading, but that idleness is degrading, and that in work alone is salvation. That is to say, the Greeks were Pagans, and we are Christians. The Founder of Christianity was a working man. The apostles were working men. St. Paul lived by tent-making while he was converting the world. I can but glance at the surface of this enormous subject. But you see on the face of it that Christianity had made an end of the notion that there was any dishonor in manual labor.

In this country, as far back as we know anything in detail of its social condition, every village boy was educated to do something useful. Every lad

who had to make his way in the world was apprenticed to some art or trade. He was brought up to plough or to dig, to be a carpenter, a mason, a smith, a seaman, a shopkeeper, a doctor, a lawyer, or whatever it might be. No idleness was allowed, not even (in the old days) to unfortunate eldest sons ; and though music and drawing and the rest of it were well enough as ornaments, the essential matter was that every man worth calling a man should be able to maintain himself by honest industry.

This was education as understood by our forefathers, and it accomplished what Aristotle thought impossible. It trained up not a small township, but a great nation capable of constitutional freedom in its widest sense. The apprentice system may be melting away, as encroaching too much on liberty. For my part I think it is melting too fast. But if we take it merely as a scaffolding, it has left behind that fundamental change in the estimate of labor which can never leave us again. In an apprenticeship a lad's occupation was his school. As he advanced in skill his mind advanced along with it. The clever mason became an architect or sculptor ; the carpenter a carver of designs in wood ; the chemist a man of science. Each trade developed into an art in which the intellect could grow to its full dimensions, while hand and brain went on together. This is gone. Machinery and the division of labor has made an end of it. The intellect cannot grow to much in making screws and buttons and gun-barrels, but an effect remains in studying men and giving them a grasp on facts ; and schools and institutes must now do the rest. Books and newspapers, lectures and discussions, open endless avenues of knowledge ; and those whose days are spent in engine rooms and counting-house can cultivate their minds in these associations.

But it must be as a complement of work, not as a substitute for it. Work, after all, is the only real educator, for work alone forces you into contact with outer things as they really are. Nature allows no illusions. You must know the actual properties of what you have in your hands before you can make use of it. You must obey nature's condi-

tions before nature will obey you. So long as the English are a working-peopple, I have no fears for the English constitution. But I distrust all mere intellectual culture : I distrust men who spend their time in reading and talking and what they are pleased to call thinking. If machines could be invented which would take place of the old slaves, which would build our houses,

make our clothes, cook our dinners, and surround us all with comforts and luxuries, while we had nothing to do but cultivate ourselves, I conceive that in the human gardens there would be more weeds than wholesome fruit, and that the liberties we are so proud of would soon go the way of the liberties of the Greek states.—*Fortnightly Review*.

GOETHE'S WEST-EASTERN DIVAN.

"*There are two Goethes!*" exclaimed the beautiful and accomplished Charlotte von Stein, in the first bitterness of her surprise, when she discovered that her favored poet, the prospective Jupiter of the German Olympus, had descended from the high platform of pure spiritual communion with her to the common level of flesh-and-blood marriages—"There are two Goethes" Yes, my fair lady, most unquestionably : as certainly as you have a right hand and a left, or, what comes nearer to the point, a soul and a body, so certainly there were two Goethes—a spiritual Goethe and a material Goethe, a Platonic Goethe and an Epicurean Goethe ; Antisthenes to-day, and Aristippus tomorrow ; a most equivocal Goethe, a most ambidextrous Goethe, a most unreliable Goethe—and you ought to have known it. You ought to have known that God did not clothe the spirit of that glorious Teutonic Apollo with flesh and blood in vain. You performed a wonderful feat, no doubt, in keeping the royal Bengal tiger hanging by our skirts and sucking spiritual nourishment from you, as a child takes milk from its mother, in the very spring-tide of his blood, for a whole decade of years ; but you ought to have known that nature was nature, and that a purely spiritual marriage could not satisfy a Goethe forever. Yes, there were two Goethes—or rather a dozen, or it may be more, if you will only try for a moment to count them on your fingers. There is first, of course, the Goethe that worshipped you, and composed the Hymn of the Angels in the prologue to *Faust*—a hymn worthy to receive a prominent place in all Christian psalm-books ; the Platonic Goethe ; the semi-Christian Goethe ;

certainly the devout Goethe for the nonce. Then comes the Epicurean Goethe, or, to use a more vulgar term, the Dionysiac Goethe, the Aphroditic Goethe, the sensual Goethe, the Greek Goethe, the heathen Goethe, the Goethe who read Ovid, Tibullus, and Propertius, and Joannes Secundus *de basiis*, who married Christiane Vulpius, and who wrote the Roman elegies, and in soft-flowing pentameters said :

*"Eine Welt warst du, O Rom, doch ohne die Liebe
Wäre die Welt nicht die Welt, wäre denn Rom auch nicht Rom!"*

Not Platonic love at all this time certainly. Then, as a third Avatar, comes the philosophical and the theological Goethe, the student of Spinoza and the Christian Scriptures, and the author of the beautiful passage on the supremacy of Reverence in the higher culture, and the supremacy of Christianity as the highest form of all possible manifestations of that virtue. After that we have the scientific Goethe, the curious student of cold stones and dry bones, the patient observer of the phenomena of light through refracting media, and the discoverer of the law of congruity of type and metamorphosis of organs in the vegetable world. Then there was the artistical Goethe—the Goethe who, when in Rome, had his crayon and his pencil twenty times in his hand for once that he wielded the pen ; the Goethe who was so powerfully attracted by works of art, and so eager for the education of the eye which they imparted, that for many years he was sorely exercised to know whether nature had meant him for a painter or a poet. Fifthly comes the critical Goethe, the man of large survey, subtle insight, lov-

ing appreciation, and cool judgment ; the man who knew exactly where he stood, and where other people stood ; and who practically achieved in his own judgments the wonder which he saw expressed on the countenance of his beloved Baroness, "to see things as they are, and to see all things with love"—"the greatest poet of our age, and the greatest critic of all ages," as Matthew Arnold pointedly, and not untruly, said. Lastly, there was Goethe the man of the world and the man of business, the statesman and the administrator ; not in a light-fingered, easy, perfunctory style, as traducers are fond to insinuate, but earnestly, thoroughly, and effectively, as indeed he did all things, combining the sensibility of the poet, and the ebulliency of youthful spirits, with the clear intelligence and the stern resolve of an energetic and fruitful manhood. Well, then, here are at least six Goethes, and never, even to Aristotle, was the epithet of "many-sided" more justly applied. For the great Grecian, though he knew all knowable, and was a master in two departments wherein the German was a blank—logic and mathematics—was in all his variety and in all his vastness a mere creature of cognition, a universal register, a living encyclopædia, a walking college. But Goethe, as we have seen, though he neither knew, nor had the capacity to know, all things knowable, presented in the most wonderful harmony an antagonism of adverse qualities which nature in her creative function, with a wise economy, generally keeps apart.

The West-Eastern Divan—of which the present paper is intended to give a notion—belongs to the Epicurean, Dionysiac, or Anacreontic Avatar, of Goethe's Muse. By this, however, we do not mean that it breathes exclusively the atmosphere of emotional enjoyment, of which wine and beauty are the most common and the most popular symbols. Not at all. Goethe could never be a mere Anacreon, or a mere Epicurus, in the vulgar sense of the term : the real Epicurus, as history teaches, was a wise man not less than Zeno ; for the man who teaches how to enjoy the good things of life, and to enjoy them moderately and with discrimination, is always wise ; though, of

course, he has not the stuff in him that makes a martyr or an apostle. Of this stuff certainly neither Goethe, nor Hâfiz, nor an old college friend, Horace, to whom Hâfiz has been compared, was made. Still Goethe was a great deal more than even Epicurus at his best ; the Hâfizian element in him, which the West-Eastern Divan brings to the front, is only a voluptuous oriental dress thrown slightly round the frame of a stout and severe hard-working occidental Teuton ; or, as Carlyle aptly has it, the soft grass that mantles the slopes of the hard granite Ben. The West-Eastern Divan is a collection of short poems, or lightly thrown out verses and versicles, in the style and under the mask of the great Persian poet Hâfiz. In fact, in this book Goethe pleases himself to throw off the German and play the Persian for the nonce, while at the same time, no doubt, he remains at heart what God made him, and takes up only as much of the style and manner of Hâfiz as suits his humor for the moment. And it is not so much the literary style or the rhythmical peculiarities of the Persian poetry, that Goethe gives us in this remarkable little book ; it is rather the tone and atmosphere, the Persian spirit of rosy enjoyment, and of calm, cheerful wisdom, to which we are introduced. It is a production of the poet's later years, composed at intervals between the years 1810 and 1819, when he had passed his sixtieth year, and was travelling toward his seventieth ; the recreation, therefore, of a wise old gentleman, not particularly given at any period of his life to disturb himself with the existence of evils in the world which it was not in his power to mend. The materials of which it was put together—no doubt as diverse in their origin as they are loose in their texture—first began to take serious shape in the year 1815—the year of the battle of Waterloo ; and we can do nothing better than insert here the account which the poet gives of the matter in his dairy (*Tag und Jahreshefte*) for the year :

"1815. The year before I had received Von Hammer's translation of the poems of Hâfiz ; and though I had not remained uninfluenced by the specimens of this great poet which had appeared occasionally in various

periodicals, the complete body of the works to which I was now formally introduced moved me so powerfully, that, if I had not contrived some means of exercising my own productive powers on the material they presented, I should certainly have been overwhelmed by it. On reading these translations, everything of a cognate character that in the course of years I had myself produced came to the surface, and this with so much the more emphasis, that precisely at that period I felt it absolutely necessary to retreat from the threatening aspect of the actual world into an ideal world in which I could at will participate according to my capacity of sympathy and enjoyment.

"I did not enter into this world as a total stranger, but had from old times carried about with me so much of oriental associations that I could even amuse myself a little with the language, so far as it might be necessary for the relish of the poetry, and even with the writing and its peculiarities and ornamentations. I brought out from my portfolios the Moallakats, of which I had translated some immediately after their appearance.* I endeavored to train my imagination to a complete sympathy with the life of the Bedouins; and the life of Mahomet by Oelsner, with which I had been familiar from old times, gave me a new impulse. My relation to Diez became more and more intimate; the book of CABUS opened to me the spectacle of these oriental manners in a very significant age not unlike our own, in which a prince had strong reasons for indoctrinating his son how, in bad times, he could best perform his part and exercise his functions in the world. Medjnun and Leila, as examples of a boundless love, were again brought near to my feelings and imagination; the pure religion of the Parsees, redeemed from its later corruptions, rose to view in its original beautiful simplicity; the travels which I had studied long ago of Andrea della Valle, Tavernier, and Chardin, were read through again with a purpose; and in this way materials were heaped up, and resources stored to such a degree, that I could at last proceed to appropriate and to apply so much of the new matter as suited my wants. Diez was all complaisance to answer my strange interrogations; Lorsbach was full of sympathy and readiness to help, and through his means I could even dare to approach Sylvestre de Sacy; and though these illustrious men could have little notion of what I was driving at, nevertheless each of them contributed largely to clear up my notions in a region about which I had frequently hovered, but with which I had never seriously exercised myself; and as I had Von Hammer's excellent translation always beside me, which, in fact, became for me for a season the book of books, I had constant opportunity of picking out from his rich mines many a precious gem."

* "The Moallakats are prize odes of the Arabs—odes which were victorious at the great public competitions of the poets before Mahomet's time, which were written in golden letters and hung up on the portals of the sacred shrine at Mecca."—Goethe.

So much for the creation and genesis of the book. For the structure, the "Divan" consists of two parts—a poetical and a prose part—the prose forming a separate volume, in the way of introduction to, or commentary on, the verses. The volume contains general views of the growth and character of oriental poetry generally, and the Persian in particular. The Arabs and the Persians, Mahomet, the Caliphate, and the Persian potentates, from Mahomet of Gasna downward, are all sketched with a few lines of refined but discriminating characteristic. Next to the influences, political and religious, in the atmosphere of which they lived, the seven great poets of the Persians are taken in succession: first, Firdusi, the national chronicler, who died in 1030; second, Enweri (1152)—a Court poet and eulogist, such as always has been an ornamental adjunct of oriental kingship; then Nizâmi (1180)—the poet of love, love adventures, and love tragedies. Fourth in order, Jalaleddin Rumi (1162)—the poet of pious meditation and religious mysticism. Contrasted with him came Sâdi, who drifted about largely in the world from east to west—like Ulysses, had "seen the cities and known the minds of many men," and became the great teacher of the wisdom of life to his countrymen. He died in the year 1291, at the advanced age of 102 years. Then comes Hâfiz (1389); and last of the seven, Jâmi, contemporary with Vasco da Gama (1494), whose books are represented as a sort of summation of all who went before him—like the pebbles at the mouth of a great river, which contain contributions from the whole geology of the districts through which the swelling current has travelled in its course. But it is with Hâfiz only that we have specially to do in the "Divan"; and so we may here shortly insert what the catholic-minded old Weimarian sage says of him:

"Hâfiz, a great genius, of the most cheerful and happy temper, who finds his pleasure in feeling independent of most things after which men eagerly strive, and though many degrees above his fellow-men, as a cheerful philosopher, never forgets that he is their brother by sharing their flesh and blood, and, as a brother, is willing to be happy with them on their own ground. He is a poet, to be understood properly only by a poet of the nation to which

he belongs ; but once comprehended in this relation, he remains through life the most pleasant of companions ; so much so that, even at the present day, after three hundred years, the camel-drivers and the mule-drivers in the sandy deserts of the East delight to lighten the road by humming his distichs, not so much on account of the sense of the poem, which himself often wantonly pulls to pieces, as on account of the brightness and lightness of the tone that permeates everything he wrote. For west-world readers, this favorite of the voluptuous East may appear trifling, or effeminate, or even vicious ; but the true test of all literary greatness dwells with him, that the more intimately you know him, the more you love and admire him. In him a happy natural genius, great culture, extraordinary facility, are combined with the habitual conviction that the only way to deal with mankind, if you wish your verses to take a permanent hold of their minds, is to sing to them what they like to hear, and what they can easily understand, while you mix up

with this cup of light entertainment an occasional impulse to something better, which, presented with a less grateful accompaniment, their stomachs would imperatively have rejected."

So much for the prose. Let us now give a few specimens of the poetical volume. This is divided into twelve books ; the Book of the Singer, the Book of Hâfiz, the Book of Love, the Book of Contemplation, the Book of Ill-Humor, the Book of Wise Saws or Proverbs, the Book of Tissar, the Book of Zuleika, the Book of Drinking, the Book of Parables, the Book of the Parsees, and the Book of Paradise. From these books we have picked out a few pieces, just as they happened to suit our fancy. Here they are.

POETRY.

Poetry is a gushing well
That scorns the niggard measure ;
Keeps the blood warm, and makes it swell
In pulsing veins with pleasure.

Blame me not ! the cup of sorrow,
When it comes to me,
I can sip, nor need to borrow
Modest airs from thee.

Modesty's a pretty thing
In a maid when woo'd ;
Modestly she folds her wing
From handling coarse and rude.

And sober thought, the wise man says,
In wise hour teaches me
For time to order well my days,
And for eternity.

But rhyme disowns the sober mood ;
I love to rhyme alone,
Or with one friend or two whose blood
Flows kindly like my own !

Cowled or uncowled, let preachers come
To dam my foaming river ;
They may prevail to make me dumb,
But to be sober never !

When the poet's fancy burns,
Be slow to reprimand him ;
You'll forgive his wildest turns,
When once you understand him !

These lines manifestly are an expression of the poet's quiet disregard for that class of persons who cannot be made to understand that a song is not a sermon ; or that a poet, who, as Plato says, is a winged animal, cannot be expected to regulate his airy flights and

wheelings by the laws which regulate the movements of pedestrian prose. Under the head of "Talisman" in the same book we find a bundle of pious versicles, pointing to faith in God, and in the moral government of the world, as the only compass that can enable weak

mortals to steer securely through the stormy seas of life. All poetry, indeed, especially oriental poetry, has humanity for its root and piety for its atmosphere ; it is only the cold occidental mind, in some isolated exercises of the mere cognitive faculty, that can make a parade of being godless. Goethe, though a devoted student of nature, had not the

least sympathy with those meagre scientists who see all things in the world, only not the resonable soul which alone could make it a world ; and who exercise the faculty of reverence, so far as they have any, in acknowledging no greater god than that which lives in their own bosoms.

RELIGION. |

I.

The East belongs to God ; the West
Gladly obeys His high behest ;
Tropic heat, and Arctic cold,
His hand in peaceful bond doth hold.

2.

Only God is just ; He sees
What thing is good for each and all ;
Call Him by what name you please,
But praise His name, both great and small.

3.

Life's a labyrinth, whose plan
Thou canst not learn from wit of man ;
But make God guide in all thy ways,
And he will lead thee through the maze.

4.

Two graces give our breathing worth,
To draw air in, then send it forth ;
That with a power to cramp and tighten,
This to expand us, and to lighten ;
So wondrously our life unites
Mysterious play of opposites.
Then thank thou God when He confines thy way,
And thank Him too when He gives larger sway.

From the Book of Hâfiz we extract only one, but a very noticeable little poem, in which the German singer is fond to identify himself with his oriental brother in one point, that the superficial student of either would not be ready to anticipate. Hâfiz, we are told, derived the surname by which we know him from his memory, richly stored as it was with the texts of the Koran. He professed to owe all his success as a man and as a poet to that sacred book ; and Goethe has once and again been equally forward to declare his familiarity with the contents, and reverence for the authority, of the Chris-

tian Scriptures, with which, like Timothy, he was familiar from a boy. The explanation of this apparent inconsistency in two poets, not of a predominantly religious tone, is not far to seek. They were both extremely Broad Church ; and pleased themselves to take from the sacred books of their country what suited their genius, and what they thought the essence of the matter. An eclectic piety of this kind we see largely exemplified in Pindar, Æschylus, Socrates, Plutarch, and other men of "light and leading" in the classical literature of the Greeks.

HÂFIZ—WHY SO NAMED ?

POET.

Mohammed Shemseddin, tell me why
Thy people, who are good and wise,
Did thee with such fair name baptize—
Hâfiz?

HÂFIZ.

Wise is thy quest ; and fitly I
Will make to thee a wise reply.
For that the Koran's sacred lore
In faithful memory I store,
And keep it there so firm and sure
That all the world's craft and meanness
Cannot cloud my soul's sereness,
While I hold its teaching pure ;
That no evil thing can cleave
To me, or any who believe
In the prophet without blame :
From faithful memory grew my fame,
And who is wise spells *memory* from my name.

POET.

Hâfiż, if this thing be so,
I may fitly call thee brother ;
For whose thoughts together flow
Their souls are kin to one another.
As the Koran was to thee,
So our Bible is to me,
Stamping my soul with impress fair
Of heavenly beauty pictured there.
Even as that maid of saintly grace
Took to herself the Saviour's face
In her white kerchief, so I took
Into my soul the holy Book,
And there in spite of sceptic error,
Gloomy doubt, and fearful terror,
I kept unharmed from cloudy scaith
The pure bright image of the faith.

In the third book, entitled " Uschk nameh," or the Book of Love, we find only a few pretty scraps of graceful *Tändelei*, not sufficiently significant to tempt us to translation. Some compensation for this blank is found in the " Tefkir nameh," or Book of Contemplations, full of wise saws and rules of life, such as old Hesiod gave to the

Bœotian yeomen, in the " Works and Days," some three thousand years ago : for in the East, as in ancient Greece, all wisdom took the form of verse ; as indeed singing is everywhere older than writing, and writing than reading.

Here is good advice in curt phrase under five heads :

FIVE THINGS.

What makes the time run short ?
Business, or busy sport ;
What makes it long to you ?
Hands with no work to do ;
What brings debts quickly in ?
Slowness to work and win ;
What wins the glowing gold ?
The stroke that is brisk and bold ;
What man stands near the throne ?
The man who can hold his own !

In the Koran, as in our Scriptures and in all Eastern religions, among the virtues a prominent place is given to " alms-giving ;" as indeed even the Greeks, who did not preach so much the duty of the strong to support the weak,

nevertheless from the mouth of Homer heard with pleasure that " beggars and strangers come from Jove." The grace of charity, accordingly, is prettily expressed in the following lines :

BRIGHT AND BRIGHTTEST.

Bright is the fair maid's eye that looks on thine ;
Bright is the drinker's eye that greets the wine ;
And like the sun that robes the flowery year,
The sovereign's word falls on the favored ear.

But brighter far than all these bright-faced things
Is the fair thanks thy gracious bounty brings
From the poor starveling, that with beaming face
And outspread hand receives thy kindly grace :
Peruse it well, that speaking face, and thou
Wilt ever give, as thou art giving now.

Goethe, in this country at least, it has been the fashion to represent as a Titanic specimen of intellectual egotism, which, under the name of "culture," he held up as a type of human perfection to his countrymen.* The present writer is happy to say that he never could find, after many years' familiarity with this great thinker, the slightest foundation of this view of his character. By the word *Bildung*, or

culture, he understood moral as well as intellectual culture. This is quite plain, among other things, from the famous discourse on "Reverence," in Meister's "Wanderjahre;" and he who wishes to find the same all-important truth shortly and significantly expressed in verse, could not do better than take with him to college or to the critical reviewer the following lines:

TRUE CULTURE.

Love and Knowledge.

The bazaar on splendid trash
Temptis the buyer to waste his cash ;
He who goes to learned college
Comes back puffed up with empty knowledge ;
But if true bliss thou wish to brook,
Learn to live in quiet nook.
If your every nerve you strain
To store your mind with various lore,
'Tis well. But how to use your lore—
The better wisdom—this to gain,
You must knock at another door.
Nor hast thou far to search and seek ;
Let the God within thee speak ;
Love all things that lovely be,
And God will show His best to thee !

How prominent a place Goethe assigned to moral above mere intellectual culture, is manifest from his short rule of life (printed in this Magazine last December), where he says emphatically,

'Besonders keinen Menschen hassen—love being, in fact, the soul of all higher knowledge, and the only key to all true knowledge of man. The same doctrine is preached in the following lines :

OLD AGE.

The years have robbed thee of so many things,
Thy passions cooled, and clipt thy wanton wings,
Thy memory maimed of all that yesterday
Brought of sweet trifles ; thy foot fond to stray,
Bound to short tether ; and made dull the ear
To the fair praise and the applensive cheer
That heaved thee on. Thy crippled soul is stranger
To joy in work and to delight in danger ;
Say now, old gentleman, what joys are thine ?
I have enough, while TRUTH and LOVE are mine.

Poets—at least Moore says so in his "Life of Byron"—have not been

specially famous for making good husbands. Marriage is always a serious business. Lord Byron made a sorry mess of it. Goethe did not manage it in the sublimest style. In his youth he indulged pretty freely in incalculable

* To this unlovely fashion John Sterling forms an honorable exception. See "Journals of Caroline Fox" (1862), chap. viii.

flirtations ; but when he did marry at last, he proved himself a good domestic man, and lived happily with the mother of his family for thirty years. How

Use the woman tenderly, tenderly ;
From a crooked rib God made her slenderly :
Straight and strong He could not make her,
So if you try to bend you'll break her ;
But let her alone and have her own way,
She'll grow more crooked every day.
What's to be done with her, Adam, my boy ?
Use her tenderly, that's what I say,
To break your own rib will bring you small joy.

Finally, from this book of practical wisdom we translate the following four stanzas, which seem to express the secret of the poet's own remarkable success in life :

QUIET WORKING.

Ask not by what gate thou entered
Into life, the garden of God ;
But in the quiet nook assigned thee,
Trim the beds and break the clod.

Look around thee, then, for wise men,
Look for men of high command ;
These will help thee with good counsel,
These will give strength to thy hand.

And when long years of faithful service
Thou hast given to the State,
Know that many then will love thee,
Know that none will dare to hate.

And the prince will own the loyal
Soul, that breathes through all thy ways,
Linking firmly each to-morrow
With long chain of yesterdays.

In the fifth book—the Book of Ill-Humor—the poet in the introduction makes a characteristic apology : " Ill-humor is always egotistical. It has its root in demands for things external which have not fallen to the lot of the grumbler ; it is presumptuous in tone and repulsive in attitude, and brings joy to no one, not even to those who are suffering under the same malady. Nevertheless it is impossible always to

strangle such feelings and to smother such explosions ; nay, it may sometimes even be beneficial to give vent to our vexation in this way, when small-minded persons with their petty obtrusiveness stand in the way of an honest man's useful activity." The following is a fretful switch of the lion's tail at the host of small flies who were indignant that the poet would not on all occasions be exactly as they wished him to be :

CRITICS.

Did I, when you went a-warring,
Bid your bloody battles cease ?
Did I make loud protestation
When your Congress patched a peace ?

Did I tell the practised angler
Where to fling his baited line ?
Did I give the wright instructions
Where to split, and where to join ?

But *you* will give me directions
How to read and how to write
From the mighty book which nature
Opened to the poet's sight.

If you have the poet's vision,
Show what thing God showed to you ;
But if my work you would measure,
First learn what I meant to do.

This is the first question, of course, with all just criticism. What did the author mean to do? as the second is, How has he done it? But criticisms, unfortunately, are not rare in England as in Germany, where the critic meddles with a business which does not belong to him, and assumes to decide on a subject with regard to which he has only picked up hastily a few scraps of ele-

mentary knowledge sufficient to cover absolute ignorance; and with him the two questions are, first, *What shall I find to say?* and second, *What shall I find to find fault with?* To criticism of this temper a man who has any concern for his happiness will give no more attention than the traveller does to the dust that blows in his eyes as he trudges along the road.

NEVER MIND !

When you see things wrong,
Never fret and fume ;
Folly will be strong
Till the day of doom.

O'er things base the base
Brook a just authority ;
And wisdom finds no place
Before a throned majority

Wayfarer, never waste
Words on such dusty riot,
But march on easy-paced
To your own goal in quiet.

The contemptible nature of that criticism which delights in fault-finding, was never more strikingly shown than in the verses about the Dead Dog, from

Jesus, as He walked through the world,
To a fleshmarket came one day,
And there before the butcher's door
Right on the road a dead dog lay.
A crowd around the carcass stood,
As vultures gather ; and one said,
" The stench of this abhorred hound
Sickens my brain inside my head."
Another said, " The grave has cast
Its refuse up for bad luck here ;"
And thus each in his way reproached
The poor dead brute with bitter jeer.
Then the Lord Jesus oped his mouth—
Not He with sharp reproach and spite ;
But from a loving heart and true,
He said, " Like pearls his teeth are white."
They heard, and none might dare to blame—
Their hearts were burning hot with shame.

The Book of Proverbs, which follows sixth in order, contains many fine pieces, from which, however, our limit-

If God to men were as severe
As you and I are, when we jar,
We both had scanty comfort here ;
But he takes men just as they are.

Nizāmi, which Goethe gives in the introduction under the title "Allgemeines."

And here follow some suggestive lines on the mixture of illusion with truth in the complex tissue of human opin-

ion, which Bacon somewhere says is rather agreeable:

TRUTH AND ERROR.

'Tis bad, but haps once and again,
That Truth will walk in Error's train :
It is her whim ; and who will dare
To blame the whim of lady fair ?

If Error then sometimes on Truth's fair train might trample,
Why should my lady fret ? herself gave the example.

The small book, "Tissar nameh," supposed to allude to Napoleon, has an unfinished look about it; and so we pass on to "Zuleika nameh," a name, as every one knows, famous in the stories of the East, and which the septuagenarian poet employed to cover his last bosom affection for a Frankfort lady named Mariana Willimer, of whom the reader will find an account in Dünzer's life of the poet, Book IX. Into the story of Goethe's loves, on which an English gentleman has written

an interesting little essay,* we cannot afford to enter at present. Only one thing we may note, that the fair ladies to whom he successively gave the homage of his large heart, seem on every occasion to have been made perfectly aware of the acts of fervent worship formerly paid at the now deserted shrine. No Frenchman certainly could have given the last link of this erotic succession a more graceful turn than is contained in the following :

ZULEIKA.

Tell me this, and tell me true,
Have you not been always writing,
Verses old and verses new,
Spinning sonnets, songs inditing ?
Tiny tomes all neatly bound,
Pearly-white and bright as gold,
You have sent the country round
To the young, and to the old ;
But this I guess, to young and old,
The self-same tale of LOVE was told.

HATEM—i.e., GOETHE.

Yes' fair maid, 'twas even so ;
Mouhs with wreathed fancies smiling,
Teeth as white as shining snow,
Twining locks and looks beguiling,
Neck and bosom hung with charms,
Glances like Apollo's dart,
Dainty fingers, lily arms,
All brought dangers to my heart ;
But all these loves, both old and new,
Were prophecies that told of you.

Without WINE, poetry, in Goethe's estimation, could not exist. This glorious sun-brewst, indeed, has been the symbol of joy and exuberance to poets from King David downwards to Hâfiz and Tom Moore : it is only in this latter age that a water-drinking poet has been proved not to be an impossibility. We must not therefore be surprised at the following verses, which are quite in the spirit of Hâfiz, though some readers

may be shocked at the comparison, and maybe even think the concluding couplet profane. But Hâfiz, though a pious man, was no Calvinist ; and though a wine-drinker, could still, as we had occasion above to reveal, be a Broad Church Mussulman.

* The loves of Goethe in Studies and Romances. By H. Schutz Wilson. London : 1873.

WINE.

Was the Koran uncreated ?
 That's a question I don't ask ;
 Or did it begin, and when was it dated ?
 That's for me too hard a task.
 That Allah breathed it every line,
 As a good Moslem I believe it ;
 But that undated was good wine,
 With most firm faith I receive it ;
 Or it may be, as some one thinks,
 The angels made its sparkling grace,
 In kindness to our mortal race ;
 This way or that, in any case
 One thing is sure, the man who drinks
 Looks God more brightly in the face !

Drinking is generally made poetical by the social associations which accompany it. It is possible, however, for a quiet brooding soul to sit and sip alone, as smokers smoke, meditating on many pleasant things. Hence the following :

DRINKING.

Here I sit alone, alone,
 With my room and my leisure all my own ;
 Tell me where my time I could pass
 Better than here with myself and my glass ?
 With no man near to nip in the bud
 The pleasant thoughts that stir my blood :
 Here I am alone with myself and my glass. !

From the four concluding books the following four pieces shall suffice :

AGAINST SYSTEM-BUILDERS.

All men, both great and small, are fain
 To weave a web out of their brain,
 While in the middle they sit at ease
 To clip and snip as they may please ;
 Then if a breeze comes some fine day
 To sweep their flimsy threads away,
 Straightway they cry—" What fiendish malice
 To overthrow our splendid palace !"

STUPID PIETY.

If the Ass whose back did carry,
 'Mid pomp of palms, the Son of Mary,
 To Mecca should devoutly fare,
 And worship with the pilgrims there,
 He would go and back return
 An Ass—the ass that he was born !

THE FOUR GOSPELS.

Jesus came down from heaven, and brought
 The text of the gospels in His hand,
 The text which God's own finger wrote,
 And read it to the faithful band
 Of His disciples. The word of grace
 Once sown in good soil grows apace.
 He rose to heaven, and with Him took
 The faultless text of the sacred book ;
 But in their hearts the truth remained,
 And each one wrote from day to day
 What in his memory each retained,
 And pictured forth in his own way.
 Well, they were men, to whom God lent,
 A diverse wit, and diverse bent,
 And therewith we must be content :
 We'll get no more, one thing is clear,
 Till the last trump sounds in our ear.

There is a great deal of good sense in this short poem, which our hermeneutical scholars have not always shown themselves possessed of.

ADMISSION.

HOURI.

Here by Heaven's decree I stand,
A warder at the gate of grace ;
Thou wouldest come in, but strange misgiving
Stirs me when I read thy face.

Art thou faithful to the prophet ?
Of our cousinship and kin ?
Through what sweatful struggle didst thou
Earn the right to enter in ?

Didst thou draw thy sword for Allah ?
Show thy wounds and claim reward :
Never yet against the faithful
Was the blissful portal barred.

POET.

Why this doubting and misgiving ?
I'm a man ; be this enough.
Life's a battle ; I have fought it
With sharp sword and temper tough.

Whet thine eyes, and look within me,
See the wounds that scar this heart—
Wounds from Fortune's freakish humor—
Wounds from Love's delicious dart ?

Yet my faith was never shaken :
I believed my love was true ;
Never cursed the babbling world,
Though it gave me much ado.

With a band of noble workers
I did work, and knew no rest,
Till my name woke love bright-flaming
From the hearts of all the best.

No, thou wilt not choose the worser ;
Give thy hand, and grant me this,
To live, and on thy dainty fingers
Count eternities of bliss.

From these specimens, the readers of German poetry will understand that the West Eastern Divan is really only a book of scraps, and not to be taken in any wise as a sample of the sort of stuff on which the poet's reputation with posterity will rest. But they are scraps from the rich and varied portfolio of Germany's master-mind ; and, like the *obiter dicta* of a great lawyer, will justly carry more weight than formal treatises from a less gifted mind. To the Germans, these excursions of their great poet into the far East had the special merit of opening to their view the general human aspects of those oriental

studies in which their great school of philologists was then beginning to exercise itself ; to us they open an interesting page in the book of curious and cosmopolitan scholarship which German literature unfolds. It was said by Lewes that Goethe was a Greek born in Germany in the middle of the eighteenth century. This is so far true. The luxurious enjoyment and reverential worship of nature, which are prominent everywhere in the works of the German, are pure Greek ; the form also of some of his most classical works is decidedly Greek, but not therefore anti-German ; and the very fact of his tak-

ing into his essentially German nature the excellences of two souls so far apart as Sophocles and Hâfiz, shows a capacity of assimilation and reproduction which is characteristically German. Taken all in all, as a man of various learning, deep thought, laborious scientific research, delicate sensibility, and

rich fancy, there can be little doubt that of all the great creative intellects that in these latter days have given a European ascendancy to the literature of the Germans, Johann Wolfgang von Goethe is their most complete and most distinctly marked representative man. — *Blackwood's Magazine*.

FESTIVAL AMONG THE BASQUES.

THE games and festivals of the modern Basques furnish, perhaps, the nearest approach in Western Europe to what may have been—their grosser and more brutal features excepted—the Olympic and Isthmian games of ancient Greece. Boxing, wrestling, chariot and horse racing have no place in the assemblies of the Basques. The Eisteddfod of Wales presents the literary side of these meetings; the gathering of the highlanders at Braemar, the athletic. But the Basques unite recreation of mind with that of the body; prizes are given equally for the best prose or verse composition, to the best improvisatore, to the successful ball player, and to the athlete. But the most elaborate of all the spectacles, the *pastorale* or *tragédie*, a dramatic performance with dance and music, which lasts a whole day, has not even a prize at all; rarely does the sum collected equal the expense of setting up the piece; and, stranger still, the most graceful of all the exercises, the manly dance, is actually paid for by the dancers. At the close of a *pastorale* the right of performing the first dance on the vacant stage is put up to auction by the actors, and the villages or *communes*, bidding against each other, purchase the privilege of sending their youth to dance the first *saut Basque* alone before the public on the stage. It is not money, but artistic enjoyment and local fame, which is the greatest stimulant to success at these fêtes.

In another respect these fêtes are like those of the Greeks; they are always held in the open air. The *pastorale* or *tragédie* is performed on a rough platform, enclosed by no barrier, open to all the spectators, and with the sky alone for its roof. The long ball court, with its seats at the upper end and down the sides, is equally uncovered. Like the

Greek theatre it is often distinguished for the beauty of the site. In the distance at least the mountains are almost always to be seen; secular trees often overshadow the stone or wooden seats on which the principal spectators sit, and afford a most welcome shade from the mid-day sun; while, near the coast, the breaking wave with its deeper murmur fills up the intervals of the buzz of conversation, of music, of shouting, or of applause. These different kinds of relaxation are not, however, found combined all in any one district. In La Soule, alone, the most easterly of the French divisions of the Pays Basque, are dramatic representations given; it is there too that dancing flourishes most, and there alone are the strange animal dances, with their quaint tunes, still preserved. There too, on the outside of the throng, athletes may be seen throwing the heavy iron bar, or leaping with a somersault in a hop, skip, and jump. In the Labourd and in the neighboring parts of Guipuzcoa and Navarre the ball games are the most keenly practised, though they are common everywhere; and there the gift and habit of improvisation is most frequent, and the *coplaçari*, makers of couplets, or *bersolarri*, makers of verses, contend against each other in poetic strife; it is there too that prizes are most frequently given for written compositions both in prose and verse.

We propose now to give a brief description of this year's fête at Sare, a village of the Labourd which boasts the best ball-players, and where, owing to the liberality of M. Antoine d'Abbadie the distinguished Membre de l'Institut, the art of improvisation has been most carefully fostered.

The fête was most sadly curtailed by the weather. Nothing could be done

on the second and third days, and but little even on the first. The morning of September 11th opened very gloomily. It had rained heavily during the night, and in the morning rain was still falling. Little by little things looked brighter. It was impossible to begin the sports at the appointed hour, but toward noon men might be seen with sponges sopping up the water on the court. Wood shavings were then strewn over the wettest parts, fires were kindled, and thus the place was sufficiently dried by the afternoon to allow of the first international match between French and Spanish Basques being played.

The ball court here, as often elsewhere, is in the centre of the village, in front of the *mairie*. Formerly, when leatheren gloves alone were used, the length did not exceed ninety yards; but since the invention first of a wooden, then of a wicker gauntlet, bound to the back of the right hand, beyond which it extends about a foot, the length of the court has been extended up to over 100 yards. At Sare the distance from the extreme wall of the court to the *mairie* is 115 measured mètres (124 yards); yet the ball, which weighs 125 grammes (over four ounces), will sometimes strike the first story before it reaches the ground, and will be returned clear over the 20-feet wall at the other end. This will give some idea of the muscular force required. The ball, though driven with such force, is constantly taken before it touches the ground, and to an uninitiated spectator it appears as if the impact would almost tear off the striker's arm; but an imperceptible yielding movement, only to be acquired by practice, before giving the forward blow, renders it harmless, and even gives an appearance of ease to the stroke. The width of the court is about 25 feet. The chief players, on whom the success of the game mainly depends, are on the in-side—the one who stands at the wall and receives the ball from the server, and strikes it back to the farther end of the court. On the out-side it is the *butor*, or server, and the player who stands at the extreme end of the court; the other, players stand between, one of each side opposite the other. The sides may be of three, four, five, or even of six each. The *butor*, or server, stands at about 25

yards from the wall, and strikes the ball with his open hand as it bounds from a small wooden or stone stand on which he has let it fall, so as to make it touch first a small paved spot in front of the central portion of the wall, then rise and strike the wall, when it is caught at the rebound by the opposing player, and hurled in a magnificent curve to the farther end. The great aim of the server is to strike the flagged space just at its juncture with the wall; the ball does not then rise, but shoots along the ground, trying to the utmost the skill of the striker to take it at all. A very picturesque feature of the game are the attitudes into which the striker is necessarily thrown by the very varied conditions under which he takes the ball. He first stands facing the bowler, follows with his eye the coming ball, turns to see where it will strike the wall, judges of the rebound, then, swiftly turning, strikes it with his utmost force—sometimes at his full height, if the ball bounds high, sometimes half stooping, sometimes on his back, as the only possible way of taking it when it shoots along the ground. The postures thus assumed often present a fine study for a sculptor. One which frequently occurs when the ball is low is singularly like that of the archer in the Æginetan marbles. The left leg is extended as far as possible forward, the right bent under the body; the fingers of the left hand and arm fall naturally and lightly on the left knee; the head and body are thrown back; the muscles of the uplifted right arm are still in full tension from the force of the blow; and the wistful, eager face and eyes are watching the ball as it speeds in lofty curve to the most distant player. As in cricket, a wet day is in favor of the bowler or server; a fine day, when the ball bounds high, in favor of the striker. On the present occasion the day was all in favor of the servers; again and again the strikers were on their backs, sometimes fairly rolling over on the ground; yet, such was their skill, they rarely altogether missed the ball. The excitement of the game when the ball is returned four or five times in succession from either end of the court is intense. It is curious then to note how all the heads of the vast crowd turn simultaneously, as if

moved by machinery, in the direction of the ball's flight. This does not very often happen ; at the second or third stroke the ball is usually driven along the ground, and is stopped or returned by one of the middle players, and the score is reckoned by the place where it finally rests. The drawback of the game is that the ball is so often sent out of court, and *falta*, a fault, is called ; but it has this advantage over cricket, that every one on both sides is always actively engaged — none are standing still. A blow from a ball of such a weight, driven by the gauntlet, is not slight ; yet the spectators are quite unprotected, and the squeezing, and ducking, and warding with parasols and umbrellas when the ball comes among them afford great merriment to those in safety at a distance. The players are wonderfully quick in dodging the ball when it is not their interest to take it ; but if, in the rush to strike it, a spectator gets in the way, he is bowled over without mercy, and must take his fall good-humoredly. An apology is almost always tendered immediately afterward ; but any attempt to resent would be laughed at, or be dangerous, as all present would take the player's part. The counting goes, as in tennis, by 15, 30, 40, and the game. There are *chasses* and *demi-chasses*, which it would be difficult and tedious to explain. Three or five umpires are always appointed, and meet in the middle of the court for solemn consultation on any doubtful point. Their decision is never impugned ; but in very dubious cases they call in the aid of any of the spectators, but so as always to keep the number of deciding voices odd.

The best players are as well known as are our eminent cricketers. "Who is that ?" I asked in my simplicity of a chance neighbor. "That ! That is the famous Arrondo," replied he, with a glance of such intensely contemptuous pity that I questioned him no more. As a rule the Spanish Basques are better players than the French, and are often stronger men. The French account for this superiority by the greater laziness of the Spanish. "We work," say they, "and have fewer holidays ; they don't work, but play whenever they like, and, beside, have many more holidays to practise in." On the present occasion,

however, the Spanish Basques were both smaller and fairer men than the French, and after a fine struggle, in which the game was twice called even, they were beaten. The victory was chiefly due to a *douanier*, Berterretche, who served on the French side, and to their two strikers, Arrondo and Zilhar. "Bravo, Zilhar !" was shouted again and again during the contest ; but the beaten party were allowed to have played a fine game.

Among other characteristics the stranger will notice how, at noon, when the Angelus is sounded, the play stops on the instant, spectators and players uncover, the band plays softly the Angelic hymn, every head is bowed in silence, the fingers move in rapid crossings, and the game proceeds as before. "Who says Basque says Catholic," is a country proverb. The games for money prizes are contested by those who may be called, in a sense, professional players ; but on other occasions men of all ranks join, and, though never in a public match, at other times the long cassock of a priest may be seen whirling in wondrous gyrations as its owner takes his part in a game where every one else is in shirt sleeves and pantaloons.

Hardly had the game of ball been concluded, and the spectators left the seats which they had patiently occupied for four hours, when the *garde-champêtre*, a fine old sailor, mounted the wall at the end of the court, and, using his hands like a speaking-trumpet, summoned the improvisatore to a more gentle contest. First a blind old laborer, Anibar of Sare, appeared, led on by a boy. As he crept slowly along the wall, twelve feet above the gathering audience below, there was a cry lest he should fall, but the boy held him firmly by the shoulders. Then a pause and a murmur of disappointment began that there would be no other candidate ; but a curly headed youth, Pelho of Cambo, came forward, and then a shout announced one of the most noted of the Spanish *bersolari*, Elicegni, *el molinero* (the miller) of Oyarzun, in Guipuzcoa ; a laborer from Echalar, in Navarre, then stood up ; then Makharra of Souraide, and a man from Baigorry, whose heart, however, failed him before it came to his turn, made up the full list. The jury,

who sat at right angles to the competitors and on a level with them, were four of the best known literary men of the Pays Basque—Dr. Guibbeau, *maire* of St. Jean de Luz, winner of poetical prizes in his younger days; Captain Elisamboure, best of living song-writers in Basque on this side the Pyrenees; M. Sallaberry, of Mauléon, author of the best collection of Basque songs set to music;* and Captain Duvoisin, the excellent translator of the Bible into the Labourdin dialect under the auspices of Prince L. L. Bonaparte.

The contest was conducted in this manner. The candidates were successively brought forward in pairs to the edge of the wall, standing high above the heads of the mass of the audience, chiefly men, in the court beneath. Then ensued a rapid consultation among the jury, and the theme for poetical debate was given out. Anibar the blind defended the cause of "Sobriety" against young Pelho of Cambo, who maintained that of "Good Cheer." Each sang, or rather chanted, a verse at the top of his voice, to which his rival replied. The old man, in a voice somewhat broken by age, started with a stanza which might be the prelude to anything. Pelho looked horribly nervous, and squeezed his *beret* (cap) in his hands as if he were doomed under severest penalties to wring out the last drop of any moisture that might be in it. Very slowly he sang his first verse, looking anything but like an advocate of good cheer. Anibar replied, but again shot wide of the mark. Pelho was less nervous than before. His third verse in reply raised the first burst of applause: his nervousness wore off; his face grew smiling, his voice firmer, his song quicker and more lively, and at the close of his sixth stanza he was proclaimed the winner. One could not help pitying the poor old blind man as he was led back to a seat where he sat dejectedly to the end. The next pair called were *el molinero* and Etcheto, the laborer from Navarre, who disputed in Spanish Basque. The subject given was the lot of a miller compared with that of a laborer; each upheld his own

calling. The miller had far the best of it, and turned the laugh on his own side by his quick repartees when accused of taking toll of grist and meal, and was proclaimed the victor. The man from Baigorry feeling perhaps that he had no chance against the miller, had meanwhile quietly disappeared, so Pelho again was pitted against Makharra, a laborer of Souraide. The subject was "Life with Contentment at Home" against "The Search for Wealth by Emigration to America." The newcomer was smiling and confident, rapid in improvisation, and sang well with an agreeable voice; but though he had the more popular side of "Home Life" he failed as a poet, and Pelho won his second trial amid loud applause; but the contest had been closer than those preceding it. Now came on the final struggle between Pelho and the miller, the one a French, the other a Spanish Basque, a circumstance which gave almost an international character to the competition. There was, however, but little expectation among the French that their young champion would hold his own against the redoubted victor of many a former contest. It was amid breathless silence (except on the part of some chattering girls) that the two began. The miller defended the condition of "A poor Peasant Proprietor," Pelho that of "A Servant or *Métayer* (tenant) under a Good Master." The appearance and attitude of the men were very different.

The *molinero* is a man of barely middle height, but of Herculean build, and he stood with arms folded across his broad chest, occasionally, during a pause, taking a hasty sip from a small wine skin proffered by his brother. Pelho, taller and slighter, crushed his cap in his right hand, and when singing swayed both arms to the tune in no ungraceful fashion. At the close of each of his first few verses he turned with an arch glance to see their effect on his opponent; but he discontinued this when he found him always ready. The miller sang of the blessings of independence, of the charms of ancestral property, of being at no man's beck and call, of the rent which the tenant farmer had to pay, etc., etc.

"Yes," sang Pelho in reply; "but I

* "Chants Populaires du Pays Basque," par J. D. J. Sallaberry. Bayonne: 1870.

have no anxiety ; everything is provided for me ; my master is kind and good ; I don't get into debt, and when I have paid my rent I have still money to put by. I do not borrow to cultivate my land, and have no fear of mortgage and of lawsuit.' The improvisation was very rapid. Every verse was saluted with applause ; each was evidently ready as soon as his rival ceased, and began the instant that he could be heard. For some six or seven verses Pelho held his own well, but after that the physical strength of the miller began to tell. He seemed as if he could go on forever ; but Pelho was beginning to look worn and exhausted, and at the close of the thirteenth stanza the jury mercifully decided that the prize (80 francs) should be divided between them. Two verses of thanks from each to the jury, to the audience, and to M. d'Abbadie, the prize-giver, concluded the scene, and the successful competitors were hurried off to the *mairie* to receive the prize, Pelho being hugged and slapped and almost torn to pieces by his admiring friends. It was striking to notice here, as in the pastorals, how much further the voice can be heard in the open air in singing, chant, or recitation than in speaking. The jury, though seated near to them, had to shout at the top of their voices to the candidates, and were even then heard with difficulty, while every word of the younger singers was distinctly heard. Each trial lasted from ten to twelve minutes, the better performers getting through double the number of verses which the inferior actors did in the same time. Thus the first pair sung only six verses each, the last thirteen each in almost the same time. The improvisatori are almost all of the class of laborers, peasant farmers, or artisans. On one occasion a girl ap-

peared among the candidates at Sare, and — hear, O advocates of women's rights—was at once unfairly handicapped by the jury, and ordered to compose in the familiar "thou" conjugation instead of the ordinary "you" form. She did it fairly well, but failed to obtain a prize.

There is, however, another prize given at these festivals, for which men of all ranks compete, a written composition in verse, and occasionally in prose. The best writers among both French and Spanish Basques engage in this. While the above improvisations were going on, printed copies of the two prize poems were handed round. The first was gained by Pierre Dibarrat, the precentor of the church at Baigorry, for a song of eleven verses called "The Charcoal-burner on the Mountain;" the second by Larrondoberri, a yeoman of Sare, for a fable in the irregular verse of La Fontaine, "The Wolf turned Saint." Neither are above the usual level of prize poems. In fact, these contests, though undoubtedly keeping alive a certain amount of literary taste, have produced no really fine poem. The best, perhaps, is one of recent years on the "Basque Language," by Sr. Arrese y Beitia ; none of the others are above the rank of pleasing songs.

The next day the rain was unceasing, and so few came to the fête that the contest for the best "irrintz," the peculiar shrill mountain cry of the Basque, as the "jodel" is among the Tyrolese, could not be entered on. The rain, however, did not deter the peasants from bringing their cattle to show for prizes on the Wednesday morning ; but nothing else could be done, and, except on the afternoon of the first day, the festival was utterly spoiled by the weather.—*Cornhill Magazine*.

AU PAIR.

CHAPTER I.

A LITTLE one-horse carriage, very rickety, very steep to climb into, was jingling its way along the road from Orthez to Sauveterre. There was much fuss in its progress, the bells on the horse's collar shook, the wheels rattled,

the drag was loose and made a discordant noise, but for all that the pace was not very great.

There were two occupants of this uncomfortable vehicle, a young lady and a gentleman, and a small trunk was strapped on behind, betraying the fact that they were travellers.

"It seems a very long way, Dick," said the girl restlessly; "I had no idea that it was so far. And the country is very disappointing," she added with a little sigh.

"There is not much to be seen yet, dear," he answered; "but from Sauveterre we are to see the Pyrenees. Always impatient, Nellie!"

"I am not exactly impatient, Dick," she answered; "I am tormented with fancies. If I have not done right after all! if this governess's place turns out a failure, and it is a very long way from you and aunt Mary," with a little sob.

"Oh, my dear little cousin," cried Dick taking her hand in both his, "you make me too miserable; is it not your own doing? Have not I implored you almost on my knees to give it up? Has my mother left anything unsaid to persuade you to make Holmedale your home? and you did nothing but go on with all that pretty nonsense of yours about being independent. How can a beautiful child like you, ever be independent? You must be looked after, and taken care of, wherever you go, and yet you preferred throwing yourself on the kindness of utter strangers, to remaining with your nearest of kin and leading the life of a princess with all of us for your slaves."

"Dick, dear, I am almost sorry now."

"Sorry? well, then, not a step farther will we go! you shall go back with me! Oh, Nellie, Nellie, only say the word and back we go at once."

"Impossible!" she said. Then, suddenly shaking her head, and smiling through irrepressible tears, she went on, "They would sue me for breach of contract! beside, being sorry that I came, does not make me wish to go back."

"Does it not?" said Dick, releasing her hand, and turning away his face to conceal his disappointment.

"No, no, Dick, you poor dear old boy," said Nellie with that kind of patronizing, affectionate kindness very young ladies [are apt to use] toward their cousins; "all my reasons for accepting this situation were so admirable that it would be very highly unreasonable to discard them now."

"It would be the first reasonable

thing you ever did in your life," said Dick bitterly. He was a tall strapping fellow about thirty, with somewhat irregular features, his want of beauty redeemed by the honest frank expression of a well-shaped mouth, and wonderfully kindly eyes. He wasted the strong love of his heart on this bright fanciful girl who, being extremely romantic and with a gilded imagination, had yet all the want of sympathy of extreme youth.

Poor Dick! how fain would he have taken her away with him, back to the safe shelter of his own lovely old Berkshire farm, where, as he fondly imagined, everything existed to make the life of his young wife a Paradise; he was wealthy enough to make farming (to her at least) Arcadian, asking nothing more of her than to share his love for his magnificent Clydesdales, his grand shorthorns, not even aspiring to the smallest sympathy for the black Berkshire pigs, so precious as to be numbered as kings only expect to be. Sally the Fourteenth and Betty the Twelfth were unique! Dick Gordon had not been brought up to do without sympathy; his mother, who lived with him, had one of those large loving natures that influence everything and every one with whom they come in contact. A very clever woman also, capable, managing, full of tact. She also was very fond of Nellie Grey, the only child of her brother, and when at seventeen the little orphan was left all alone in her dingy London home, Mrs. Gordon hastened to bring her to Holmedale and be to her as loving and a thousand times more motherly than her own dead mother had been.

Nellie had been brought up in London; her father had been a fashionable London doctor, and had at one time made much money, but with affluence came imprudence; he speculated, hoping to treble what he possessed, and failed; when he died, nothing was left for Nellie, not even enough to pay for her black gowns.

The girl's life had been a very happy, if somewhat neglected one; she had had masters for all the usual accomplishments, spoke French and German with facility, played the piano rather incorrectly, and sang charmingly; no one

superintended her reading, and she read every novel that she could get hold of—fortunately those that her father's house contained were not harmful, but of a very romantic order, and Nellie's mind was full of castles in the air, wonderful ideal heroes, and strange adventures.

Her first experience of real love in real life was her cousin Dick's attachment, which he concealed for a time so effectively that had she not been enlightened by her friend, the vicar's pretty daughter, she would never have found it out.

Could anything be less romantic, more odiously commonplace than to marry such a man as Dick—a man with such a close cropped head, such a thick rough mustache, and who was not in the least fond of poetry?

Nellie hated Holmedale; she was horribly afraid of the horses and cows, always thought that Dick would be thrown when he went out hunting, and could not be got to like walks in the fields or ploughed land; she was a born cockney, and country life had no charms for her. When Mrs. Gordon realized that her son had really given away his heart's love to Nellie Grey, she felt as if her heart would break; no sorrow that she had endured herself seemed to her heavier than that of foreseeing the inevitable pain that must come to her boy; yet she said to him no word of remonstrance, she knew too well the utter uselessness of such a course; but she set herself to study Nellie's character, to try and develop her really excellent qualities, and to bring them to the surface. But poor little Nellie did not want to be taken *au sérieux* as yet—she wanted to wait and enjoy herself and dream of an ideal future, and escape from the deadly monotony of beautiful Holmedale. She found the opportunity at last. A friend of her early days, a Miss Graham, was a strong-minded woman; she wrote to her frequently, urging her not to allow herself to become a dependent on her aunt's kindness, but to strike out a line for herself, gain her own bread, see something of the world. These letters, combined with her extreme longing for variety, made Nellie search the advertisement sheets of the *Times* daily, with a hope of finding something which

would exactly meet her wishes. It came at last, a rather unusual advertisement, but which took her fancy:

"*On demande une Institutrice anglaise, munie de bons renseignements, au pair; s'adresser à Madame la Harpe, Sauveterre.*"

Nellie did what was not right: she answered the advertisement, obtained recommendations from old friends in London, and not till the whole thing was arranged did she tell her aunt.

Mrs. Gordon was much disturbed, grieved and displeased with what she had done, but unable to resist the coaxing, pleading ways and kisses of the culprit. She consented to let her go, after satisfying herself by very careful inquiries that the French lady who advertised was all that could be wished, and she was not without a secret hope that Nellie might learn in the house of strangers to appreciate the happy home she was ready to sacrifice.

Dick Gordon accompanied her on her journey, much to his own inconvenience, in the busy spring-tide of the year, but to the last he cherished a hope that she might repent and let him take her back again.

The little carriage jingled on, crossing, one after another, long vine-covered low hills, always rising and falling with about the same unvaried view—now they passed through a village, now again dipped into a valley and up once more; vine-clad hills are more profitable than picturesque, the straight monotonous lines destroy the beauty of the landscape.

Nellie grew paler and paler, and by-and-by she put out a cold little hand for Dick to take and hold; she felt great comfort and strength in his warm, strong clasp, and she wanted comfort like a child, and sought for it without a thought of the cruel pain she was inflicting, for Dick, with the intuitive perception of his sympathetic nature, understood the silent appeal and took it for what it was worth.

As the road rose over the last hill, and reached the end of the series, the hills stopped, and, as it were, rolled back to right and left, and they stood on a kind of high plateau, while a glorious view broke upon them.

Nestled on the hillside lay Sauveterre, bounded in by a terrace-wall; far below,

a deep valley fringed with trees, at the bottom of which, amid stones and rocks and boulders of granite, rushed the river Gave ; behind, the low vine-covered hills ; in front, all middle distances swept away, and a wondrous vision standing out in the clear air—the grand range of the Pyrenees, while framed in by the branches of an old chestnut tree which hung over the road, seeming almost like a cloud in the air, rose the snow-clad Pic du Midi.

Neither of the travellers spoke for a moment—then Nellie turned and said breathlessly :

" Oh, Dick, is it not beautiful ? "

But Dick did not answer ; his eyes were fixed on the far distance, and there was a strange yearning look in them, solemn, intensely sad. Had an intuition come to him, all indefinite as yet, that for him also there was no middle distance in life, only a rushing torrent beating itself on the stones, and far away a vision of distant heavenly hills ?

But there was no time for thought ; with a tremendous crack of his long-lashed whip, the driver urged his little horse to dash into the stone-paved streets of Sauveterre at full galop.

CHAPTER II.

" Where do Monsieur and Mademoiselle wish to descend ? "

" At the Maison de Mabendie, Madame la Harpe," answered Dick.

" Here we are, Monsieur," and the little carriage drew up suddenly before a narrow little street. " Monsieur and Mademoiselle must get out here, go along the little street, turn to the left, and before them they will see the Maison de Mabendie. Does Monsieur propose to return to Orthez to-night ? "

Mr. Gordon looked at his watch. " I must be at Orthez in time to catch the nine o'clock train," he said. " How long will it take you to take me down ? "

" Monsieur must not start later than half-past six. See, an hour to rest my horses, and Monsieur must start."

" Oh, Dick, only an hour," said Nellie piteously ; she had got out of the carriage and stood beside him trembling.

" An hour is a good long time, Nell," he said, smiling encouragement—he

would help her now as much as he could.

The coachman remounted his seat and drove off to the little inn, promising to send round a man with the boxes and small packages in a few moments, and anxious to lose none of the precious moments in which he wished to make himself acquainted as much as possible with his cousin's future home, Dick drew her quickly with him down the ill-paved, dirty little street. The approach was unpromising, but ended in a small open court. The old house which was their destination stood in a beautiful situation on the walls, with a narrow terrace round it, bounded by a low parapet actually overhanging the valley and the river. The valley was half spanned by a very ancient bridge, the middle arches of which had long been swept away, the rest remained, all clothed with ivy and other luxuriant vegetation. In the far distance the wonderful mountains. It would be difficult to find a more lovely situation.

The old house was large and picturesque, carrying on each end the *tourelles*, indispensable attributes of *noblesse*. It was washed all over with yellow-wash of a warm color, concealing the thick stone walls, in many places from three to four feet thick. The narrow terrace was bright with flowers in great earthen jars.

" It is very pretty, Nellie ! Come, dear ! don't be so frightened !" said Dick, patting her hand, as he rang the bell.

The door flew open, and with a kind of rush, it seemed as if the whole family of La Harpe poured into the courtyard.

Outstretched hands greeted the newcomers, and a torrent of welcoming words.

It seemed as if every face there photographed itself on Dick Gordon's brain, so great was the tension.

Monsieur and Madame La Harpe were both short, both perfectly round. Madame seemed to roll rather than walk, bound rather than turn ; very active, very voluble, and in a black gown flashing with jet beads.

Mademoiselle la Harpe, Amélie, was just what her mother must have been at her age, short, plump, rather pretty

with a profusion of frizzy black hair, and too large a face, all *épanouie* with good-nature.

Monsieur Jean the eldest son, and his wife, were of a somewhat different type. Monsieur Jean, *avocat*, thin, pale, bald, and studious. As for Madame Jean, her face was as the face of a pitying saint—so sweet, so sad, and so worn. Behind stood two *bonnes*, with rosy faces and bright-colored handkerchiefs, picturesquely tying up their black hair.

It seemed as if they could not make enough of Nellie. They pressed her cousin to stay, but he was obliged to refuse, his presence was urgently wanted at home. They then, all of them, despatched the *bonnes* to prepare some refreshment for him before his departure, and conducted them into the large, cool *salon*. Time was going, flying very fast. Dick at last boldly determined that no more must be lost. He advanced to Monsieur la Harpe and asked to speak to him in private.

But Madame la Harpe had no intention of being excluded from the interview, and she solemnly led the way into another room, followed meekly by her lord and the tall Englishman, who seemed to them almost colossal.

"I have but a very short time," said Dick, in his frank, open way, "but I am most anxious to commend my little cousin to your care—she has no nearer relation than my mother and myself."

Madame la Harpe gave a little wave of her hand. "You may depend upon us," she said. "Her situation with us, *au pair*, makes her in all respects one of ourselves; the advantages my Amélie derives from her, she also will derive from my Amélie, and—

"Yes, Madame," said Dick earnestly, "but I venture to ask even more. She is only seventeen and an orphan. I ask for her your tenderness, your care, your consideration."

Monsieur la Harpe gave his chest such a resounding thump that Dick quite started.

"Faith of a *père de famille!*" he exclaimed. "She shall be as our own child, and with your concurrence, my good sir, I will marry her myself."

Dick started again. Madame la Harpe nodded approvingly.

"But, my friend," she said, "per-

haps Monsieur intends to marry her himself; it is his right, and as her only male relative, his bounden duty; of course, if he should desire it, I also will do my best."

A confused sense came flitting over Dick's bewildered mind that, like Boaz, as nearest of kin, he had a solemn duty to perform in espousing his cousin; then the absurdity of the notion crossed him, and he could hardly help smiling.

"In England," he said "it is our habit to let young ladies please themselves about marrying."

"That is a very strange and reprehensible custom," said Madame la Harpe severely.

"*Madame est servie,*" said a maid at the door.

"Ah, and there is so little time, and farewells to be said and all!" cried the good father. "Monsieur," with another portentous slap on the breast, "you may rest contented, we will take every care of our sacred trust. You may put every confidence in me."

"I am sure I can!" said Dick heartily. He read something straightforward and honest in the little man's black, bead-like eyes.

Monsieur la Harpe rose and bowed profoundly, Dick returned the bow; Madame la Harpe courtesied, and Dick repeated his salutation. It was like the seal of some solemn compact. Then she led the way to the dining-room.

If Dick Gordon's healthy English appetite had looked for cold beef, it looked in vain. The repast consisted of a vast omelette salad, bread and fruit, and excellent *vin ordinaire*. Nellie could not eat a mouthful; her eyes were fixed on her cousin as if she would never take them off. The time was going so fast.

Dick Gordon looked again at his watch. "I ought to start for the inn in five minutes," he said. He gave a quick look round at the whole assembled family: his look ended imploringly on Madame Jean. A flash of sympathy passed between them. She rose.

"Let us go, my friends," she said. "Our friends would wish to say their adieus in private; and little demoiselle Nellie must have many messages to send."

"You are quite right," cried all the

kind-hearted family, who would never have thought about it themselves, and they all hustled out.

Nellie waited till they were all gone, then she ran up to her cousin and hid her face on his shoulder.

"Oh, Dick, dear Dick," she said. "I have been so wicked, so ungrateful. I have never been half good enough to you, and now you are going away. Oh, Dick! say you forgive me; and give my dear, dear, dearest love to Aunt Mary."

"Forgive you, Nellie? Child, there is nothing to forgive. Nellie, I have never told you—I did not want you to know; but, darling, you are my own heart's love! Hush, hush; I only tell you that you may know that whenever you want a home or—or a friend, a brother or protector, I shall be waiting for you—to welcome you, my little love, and ask nothing—nothing in return."

She was sobbing on his breast.

There came a low knock at the door, and Madame Jean's soft voice:

"The voiturier begs that Monsieur will come."

"Dick, Dick! kiss me," cried Nellie almost frantically, for her cousin had wrung her hands and was turning away.

"Good-by, darling, good-by."

"Dick, won't you kiss me?" she cried, putting her arms round his neck like a child.

Then he stooped, and kissed her passionately.

"God bless you and help you, Nellie! Good-by."

He went out. They were all waiting for him outside. How he got through all the salutations, bows, and farewells he could not tell. But it was over at last, and he was once more rapidly driving down the road to Orthez.

Meanwhile Madame Jean stole quietly back to Nellie, and allowed her to sob out her grief and loneliness in her kind arms.

CHAPTER III.

In a very few days Nellie Grey was quite at home in the Maison de Maben-die, and now the spring days were lengthening, and the sudden summer of the South burst upon them in all its hot splendor.

At first Amélie and Nellie, still some-

what shy of each other, worked well together, alternately at English and French, but by degrees their ardor for study somewhat waned, and as it grew hotter they grew more desultory.

The life was very different to anything to which Nellie had been accustomed, but the facility with which she adapted herself to it was quite astonishing. Sometimes she wondered with a little start of dismay, what her Aunt Mary would have said if she had seen her in the mornings going about the house in a loose dressing gown of Pompadour print, with her hair not done, only rolled up over a comb. At first she felt very untidy, but all the others were the same, so she soon began to think it impossible to take the trouble of dressing herself before it was time for the twelve o'clock breakfast. The food at first seemed a little strange: meat was only to be had once a week at Sauveterre. Nobody expected it oftener—not the La Harpes, the wealthiest people in the little town; not the Marquis and his Parisienne wife, who came from Paris to spend the summer in their pretty, old château—nobody thought it necessary. The town was full of hens and chickens; eggs abounded, and formed the *pièce de résistance* at every meal. Then Jeannette, the cook, was so clever at all kinds of soups, and would go along the roads pulling little tufts of foliage out of the banks, from which she would produce a delicious *maigre* or a fresh salad that was quite astonishing.

Nellie Grey was a Roman Catholic, as her mother had been before her. The church stood outside the town, and was not in any way remarkable, except for the beauty of the view. Indeed it was impossible to stir our of the streets without coming into sight of the distant Pyrenees, from early morning to late evening constantly varying in the color of their splendor.

One of the prettiest spots was the little cemetery, lying on the side of the hill. Thither the two girls would walk every Sunday evening before the hour of the last service, the *Salut*. They accompanied Madame Jean, for in the little cemetery lay one of the secrets of her sadness—two baby graves side by side, their little mounds railed in with

white railings like the sides of a child's crib, and within a bright, wild bush of flowers, varying with the season of the year, always sweet-smelling and luxuriant.

Madame Jean would often kneel on the wooden step at the foot of the tiny graves and hide her face, and become so absorbed in prayer that she would hear nothing—not even the church bells—and the two girls would rouse her tenderly, and glance at each other with awe at the sight of her far-away look. There was another secret in her sad life: Monsieur Jean believed nothing. He was tolerant; he did not scoff, but for all that, he had no faith.

"Nellie," said Madame Jean very softly one day, "the Holy Innocents must have a peculiar power in prayer, for their prayers must be so pure, and unbiased by even natural earthly love. Do you not think so?"

"I do, indeed, dear Madame," said Nellie gently, and Madame Jean said no more.

One day Madame la Harpe came into the *salon*, where all the younger ladies were busy at their different occupations.

"My children," she said, "I have a good deed to propose to you for the improvement of your souls. Are you willing?"

"Assuredly!" said Amélie, looking up with a smile; "Fi donc! Mamma; do you doubt it?"

"It is old Benoîte come up again. A hundred more francs are wanted. Your papa will give five; perhaps among us we can make up a few more."

"Who is old Benoîte? What is it for?"

"You shall go to the kitchen and hear the story, *mignonnes*," said Madame Jean."

"What do you say to a *quêteuse*, Mamma? A begging expedition?"

"Just what I was about to propose, Françoise. You and Amélie can take half the town, and I myself with Nellie, can do the rest."

"Oh, no!" cried Nellie shrinking, "I do not think I could go begging. I never did such a thing, I should not like it at all."

"Then, how very good for your soul!" said Madame Jean quickly and smiling.

"You will not mind, Nellie," said Amélie encouragingly. "Mamma will do all the talking. She is the best *quêteuse* in Sauveterre."

"Go to the kitchen, *ma fille*," said Madame la Harpe, "and take Amélie with you, and hear Benoîte's story; she talks French, not Basque."

The two girls went down to the kitchen. A strong, handsome-looking old peasant woman was seated in the place of honor by the window.

Jeannette was peeling onions in a big wooden bowl; Célestine, the other *bonne*, balancing herself backward or forward on her pointed *sabots*, doing nothing. "Mademoiselle has not seen Benoîte," she said, pointing out the peasant with admiration.

"Ah! so this is the young foreign lady," said Benoîte, not rising, but lifting up her head, and looking at Nellie with a pair of fine dark eyes strangely brilliant and clear. "And I hear that she is charitable and never omits to give her *sous* at the church door. I may surely depend upon help from her."

"Surely," murmured the two *bonnes* together.

"But then, Benoîte," said Amélie playfully, "this young lady sees you in a beautiful dark cotton gown, with a crimson handkerchief and a silk one on your head. She must say to herself, Why does this rich person beg—hein?"

"So she knows nothing, my little demoiselle? Sit down, sit down, you shall hear," and with the gesture of a hostess rather than a guest, she made the two girls sit down on the bench before her.

"I was young once, *mes filles*," she began, "and I had a young husband; he was very bad, very wicked. Most husbands are; be advised my children, do not be so foolish as to marry; the single are happier, it is better so—*Va!*"

They listened with all submission.

"My husband was so bad that I often wished myself dead; he beat me, he turned me out on the hill-side twice on winter nights, he drank—at last he was never sober. We had two children; the eldest was a girl, her name was Aline. I called her Aline after Mdlle. Aline de Mabendie, the last of the old family. Aline was three years old when, in a drunken fit, her father killed her."

Nellie gave a start of horror and dismay, then looked with astonishment at Benoîte. She had told the story so often that it had become a merely mechanical narration, in fact, there was a little triumphant complacency in her voice, but no trace of emotion.

"Yes," she said. "But that was going too far; Monsieur le Curé would not absolve him for that; the drink-fever came on, and he died without the blessing of the Church; he was very bad, my children. Heaven rest his soul! Well."

Her dark eyes lit up, she was evidently coming to the interest of her story. "My second child was Jean Marie; he was an infant at the time; emotion had tried me, I could not nourish him. I had a goat at the time with a kid. I sold the kid, and gave Jean Marie to the goat; she suckled him as her own kid, and at the sound of his cry, would come bounding in to stand over his cradle and feed him, and he thrived well. Now I knew that my bad husband could only be saved by a very great effort on my part, and I vowed that I would make my boy into a priest, and that his first mass should be for his father's soul. I labored, *mes filles*, I worked night and day; my hands are not weak yet, do you see? but once they were stronger than two women's. God helped me. Monsieur le Curé saw my purpose and educated my boy, caused him to pass into the college; he learns a great deal, my little Jean Marie. See! here are his certificates," and she drew a little bundle of papers from her pocket. "Five is the highest mark, see! Mesdemoiselles, all of you, come close. Divinity five, Philosophy five, Good Conduct four, and so on and so on. Monsieur le Curé says they are excellent, and now he will be ordained in three months, and a hundred francs are required for his fees, and these are wanting."

And with a fine dramatic gesture Benoîte rose to her feet, drew her cloak round her, and prepared to leave the kitchen.

"I commend the matter to *ces demoiselles*," she said. "*Au revoir.*"

"She has confidence," said Jeannette with admiration.

"She is quite right," said Amélie. "Come, courage, every one. You Jeannette and Célestine must also do your best. Fancy if, after all, Jean Marie should not be ordained."

"It must not be thought of," said the stout Jeannette, putting her arms-a-kimbo—"if I have to resign all my economies."

"You will not refuse to undertake the *quête* now, Nelline?" said Amélie, taking the arm of her friend. "Indeed, you need have no fear. Mamma, as I said, is an accomplished *quêteuse*!"

Half an hour later, Madame la Harpe in a splendid toilette covered with black fringe, and a bonnet with ostrich feathers, started on her pious mission with Nellie by her side, looking very fair and shy in her white gown.

They went to all the principal houses in the little town, and Nellie, at first painfully shy, became more and more amused.

"It is impossible that you can refuse me, Madame," Madame la Harpe would say in one house. "You have such beautiful and amiable children, who are so especially blessed in your interior! Such a good object! Ah! Monsieur, your face is the very type of the benevolent. You have never refused me before, and never, no, never have I asked for a more worthy object."

Sous, half-francs, francs, even five-franc pieces rained upon her.

"Nellie," said Madame la Harpe. "I am dead with fatigue, I believe my bonnet to be on one side, my face streams. Truly, when one is as fat as I am, one should limit one's piety. Stop; there is Monsieur le Marquis himself. She gave me ten francs, but he does not know that, and he might give us a trifle."

A gentleman was strolling up the street with two fat mottled pointers at his heels.

Monsieur le Marquis *en province* did not take the trouble to shave; his appearance was not improved by a three weeks' growth of irregular whiskers, his white linen dress and panama hat with a broad black ribbon spoke of the ease and comfort of elegance relaxed.

"Ah, Monsieur," cried Madame la Harpe, rapidly crossing the road with

the bounding motion peculiar to her, "you are just the one whom I have been hoping to meet!"

"At your service, Madame," with a low bow, and the gentleman removed his cigarette from between his teeth.

"Monsieur, it is for a work of charity," she began—

"Ah bah! I leave all these matters of my wife," said Monsieur le Marquis somewhat abruptly.

"We all know the charity of Madame your wife, but see, Monsieur, I should like to give you also the opportunity of doing a little something for your soul."

"Which wants it badly, *hein*, Madame?" said the Marquis, laughing.

"Of that I can be no judge until you have either refused me or given me a little donation."

"An excellent answer, Madame. So you will not accept my wife's alms as mine?"

"Come, come, though you are married fifteen years, you have not lost your individuality."

"And this young lady. Is she on the same quest?"

Madame la Harpe gave a rapid glance at Nellie, which she interpreted rightly as an entreaty for help. Monsieur le Marquis stood looking at her with his head on one side and a pair of bright little eyes glancing like jet beads. She looked up merrily.

"Monsieur, it is my first *quête*," she said. "And if I did chance to take home a gold napoleon I should——"

"Well, what would you do?"

"I should jump for joy," said Nellie demurely.

Madame la Harpe looked shocked, she evidently thought that Nellie's demand was excessive.

"How is one to refuse," said Monsieur le Marquis, throwing out his hands, "when wit and beauty beg?"

"And conscience enjoins," said Nellie.

"Ah, for that!" and he gave a little shrug of the shoulders. Then opening his purse he took out a shining napoleon, and handed it to Nellie with a profound bow.

"Now jump! jump for joy, Mademoiselle," he said.

But Nellie had become suddenly shy, and blushed rosily.

"Experience is not so charming as anticipation," he said sharply.

"You are mistaken," answered Nellie. "I shall jump when I get home!"

"I am delighted to hear it!" And with another salute, Monsieur le Marquis resumed his cigarette and strolled on.

"That is beyond my dreams," said Madame la Harpe. "I wonder how Amélie and my daughter-in-law have fared?"

"No one could refuse Madame Jean," said Nellie. "It would be like refusing St. Catherine herself."

"Yes, she is a very saint, my daughter-in-law," said Madame la Harpe with a sigh. "Her vocation was always the cloister."

"Indeed?" said Nellie eagerly.

"Then why did she marry?"

"It was the will of her parents. She had a good portion, and was a very suitable *parti* for our Jean. We had no idea that her inclination was so strong a one when we arranged the marriage."

"And Monsieur Jean?"

"He never saw her till all was arranged; then he was quite satisfied; he looked upon her vocation as a childish folly that she would soon shake off, but she never will."

"Never!" said Nellie emphatically.

At this moment the sound of *sabots* clopping after them in full pursuit arrested their attention, and Toinette, the fat *bonne* from the inn, came up with them.

"Stop, stop, Madame!" she cried in Basque. "Let me tell you something. The omnibus from Orthez has just come in, and three gentlemen have descended at the inn. I do not know whether they are to stop or to go on when Jean Marie's horses have rested, but they are rich, and beautiful—officers! and in uniform; they are now seated on the terrace each with a cigar, a *demi-tasse*, and cognac. I am convinced that they would give largely. It was Madame's Jeannette who sent me flying after you, ladies."

Madame la Harpe set her fringes to rights with a shake, righted her bonnet and turned round.

"Courage, my child," she said to Nellie. "This task shall be performed by you."

"But, Madame, surely—will it be really right?"

"Your duty—and not the smallest impropriety in it! Heavens! My dear child, should I—I of all people advise an indiscretion? Anybody may speak or converse to anybody on a *quête*, and no one ever takes advantage of it. You may meet the same individual ten minutes after, no one ventures to bow, there is no acquaintance. It is strange that you should be ignorant of this etiquette. But here we are! Why, you are quite pale, Nellie?"

"I do not like it at all, Madame," said Nellie nervously.

They approached the narrow strip of garden bordered by terrace, belonging to the inn. At a small iron table, in the midst of a kind of arbor of untidy greenery, sat three officers, whose epaulettes and gleaming sword-belts caught the light of the now setting sun.

"Now, my child, courage."

Nellie went forward desperately—went quite forward till she stood before the three men, who all rose to their feet simultaneously.

"Messieurs," she began tremulously and clasping her hands nervously together with a little gesture of entreaty "if you had a little money, just a few francs, to bestow on charity!"

"*Tiens!*" exclaimed one of the gentlemen in a tone of such unmixed astonishment that Nellie was seized with an irresistible inclination to laugh.

"It is not for myself," she said. "Indeed it is for Benoîte."

"And who is Benoîte?" said the oldest of the party—a stout gentleman with a magnificent white mustache pointed with mastic—with great severity.

"Benoîte has a son and—"

"Ah, Benoîte has a son! then why, Mademoiselle, may I ask, does not Benoîte's son support his mother?"

"The young lady is an inexperienced *quêteuse*, *mon Général*," said one of the officers in a low voice.

Nellie caught the words, and looked gratefully at the speaker. He was tall for a Frenchman, with a dark face and bright observing eyes, a mustache of the kind called coquettish in France, short, well-trimmed, and turned upward at the corners with a twist, cheeks

and chin of the blue tint of a dark man closely shaved.

When his eyes met hers there was a look of unbounded admiration, mixed with some pity in them.

"Old Benoîte's son cannot help her, *Monsieur le Général*," she said with some spirit. "He is in a seminary, and is to be ordained if, among us, who are the friends of his mother, enough money can be raised to pay his fees."

"*Peste!*" said the General. "I am sorry, Mademoiselle, but I can give you nothing; if I had my will, the conscription should extend to the priesthood, and every man-jack among them should serve his time. We shall not have long to wait before it is so."

Nellie made a little haughty bow and turned away, when she was again arrested by the young officer who had spoken before.

"If Mademoiselle will accept of my small contribution," he said, handing her a couple of francs, "I shall feel honored."

Nellie took the money, saying the formal words used on each occasion by Madame la Harpe: "The good God will reward you, Monsieur"—and she was going on her way when she was startled by a shrill little cry and a rush past her.

"*Étienne!*"

"*Mamma!*"

And the young officer was in Madame la Harpe's arms, rapid kisses from each side to the other, showering between them.

"You here, my son; and not come at once to me! but what does it mean?

"Hush," and he walked away with them out of earshot of the other officers. "I am with the General, Mamma, and cannot leave him till he departs by the diligence in half an hour. Then, at once I join you! I have news for you too, but I must not stay now. *A tantôt!*"

And he returned to his duty.

The General was smoking and saying blasphemous things, launching bad words, and worse insinuations against the priests, his aide-de-camp listening with profound indifference, when Étienne la Harpe came back.

"You are of this town, *docteur*," said the General. "Who is the lovely *quêteuse*?"

"She is a young Englishwoman, *mon Général*, staying with my mother."

"*Peste!* I envy your luck—she is beautiful as a houri."

CHAPTER III.

"BUT who is he, Madame?" said Nellie when her breath came back, and she and Madame la Harpe were hurrying rapidly home to prepare for the new arrival.

"Who is he? He is my Étienne, my beautiful, good youngest son! What will they all say! We did not expect to see him for another three months."

"But I had understood that your youngest son was a doctor, Madame?"

"So he is a doctor—military doctor, you know. He must have got promotion! nothing else could have brought him back so soon! oh la! la! how my bones do ache! To think that Étienne should be come back so soon!"

"Well, Mamma! and what success have you had?" cried Amélie, meeting them at the door.

"He is come, Amélie! He has arrived with the General and is seeing him off by the diligence at this very moment." Amélie looked bewildered.

"Come!" she said. "But is it then too late? has he missed his chance for lack of the fees?"

"Missed his chance! for shame, Amélie, it means promotion, on the contrary. Oh, the joy of seeing him again!"

Amélie's hands went up in the air, her eyes opened.

"Heavens, Mamma! is this delirium? And you look so hot and exhausted! What is she speaking about?" she added, leading her mother in, and appealing to Nellie, but before Nellie could reply, Jeannette came flying up to the door, the ends of her hand-kerchief streaming behind her head.

"But hear, Mesdames! Monsieur le docteur has come. He is here in person! Oh, the happy day!"

"Étienne?" cried Amélie.

"Étienne! Who speaks of Étienne?" and out of his room came Monsieur le Harpe in his shirt sleeves.

"Étienne is here! he but sends off the General and joins us!" said Madame la Harpe sinking into a chair.

"Hark! the horn! the diligence goes!" cried Jeannette.

The distant note of the diligence sounded on the air, and it had hardly died away before Monsieur Étienne came clanking into view in all the splendor of full uniform. Nellie stood by watching the lavish kisses, from the first ones bestowed heartily on both the plump cheeks of "Papa" to those finally given to Jeannette the foster-sister of Monsieur le docteur.

The warm greetings were over at last. The evening was very hot, and after dinner the whole party were glad to descend to the terrace. That evening was never effaced from Nellie's memory. They all sat grouped, the ladies with their work, the gentlemen leaning back luxuriously. Madame Jean with her calm pale face and long black gown flitted about making glasses of syrup for Monsieur Jean and Étienne, the latter took the hand which presented the glass to him and pressed it to his lips.

"Always a ministering angel, *ma sœur*," he said, and she smiled her sweet sad smile.

Nellie was too shy to look much at the young officer, but his quick bright glances followed her every movement. She sat leaning her head on her hand, her elbow on the low parapet; the fair soft masses of her golden hair were a little disordered by the soft wind; her large blue eyes were cast down and veiled often by their thick dark lashes; the bright pink color came and went in her cheek. Darkness stole softly down over the mountains, and deepened the shadows in the valley; the noisy dash of the river below made a sweet monotonous music.

There came a certain hush upon all the party; they felt the calm of the hour. Monsieur Jean broke the silence first; he was, as he flattered himself, too much a man of the world to be romantic.

"You have never told us what brought you back so much sooner than we expected, Étienne," he said.

"I told my mother," answered the young doctor, bending forward and patting the little fat hand of Madame la Harpe. "I have promotion. I have been offered the post of *medecin-en-chef de l'hôpital militaire* of . . . Algiers!"

"*Sapristi!*" cried Monsieur Jean;

"but that is a 'good position'! a first-rate position!"

"It is!" said Étienne, leaning back and twisting the point of his mustache.

"I always said that he would go far!" said Monsieur la Harpe, rubbing his hands with a chuckle.

"Merit, skill and perseverance always succeed," said Monsieur Jean.

"With the blessing of the good God," said Madame Jean softly. "Étienne, receive my congratulations."

"And mine, and mine," came the chorus. Nellie felt that she must add her little offering, and she said timidly, "Let me also congratulate you, Monsieur." He turned sharply round at her words with a sudden movement of *empressement*.

"You are too good, Mademoiselle," he said. He looked at her, hoping for some further speech, but she said no more.

"Yes, it is a good position, Étienne," repeated Monsieur Jean, leaning back and sipping his syrup. "But Algiers is far from home; you will be lonely. What do you say, my father—shall we occupy ourselves with making a marriage for this famous *medecin-en-chef*?"

"I have thought much of it," said Madame la Harpe gravely.

A sudden flush came over the young doctor's dark face.

"Come," he said, with a little laugh, "if you are so indiscreet as to begin such a subject before all the world, I must vanish."

"All the world!" said Monsieur la Harpe. "Why, you are in the bosom of your family!"

"And as for Nelline," said Amélie affectionately, "she is one of us."

"A dear little sister," said Madame Jean impulsively. Madame la Harpe added a sounding kiss.

Nellie laughed a little, and blushed still more, but she was touched. A contrast flashed into her mind; all this caressing, this vivacity and demonstrative words, the pretty flattery, the petting, and idle sunny life, how pleasant it was! She remembered how different it was at Holmedale, where every one was busy, where her Aunt Mary always expected her to be drawing, or singing, or working in the house, where her kiss in the morning was so

calm and gentle. And Dick, how well she remembered his bitter words: "To go back would be the first reasonable thing you ever did in your life." The words had not struck her at the time, but now they came back in contrast with all the petting in the new life. Then came a little pang of self-reproach, and a vision of Dick's kind, sorrowful eyes looking down upon her with that haunting look of intense love.

"Mademoiselle, you are cold, you shiver; allow me to put this round you."

It was Étienne offering her a little shawl; in his manner the devotion of a Frenchman.

Down below, the fire-flies came out and danced their wild starry dance in the valley. Nellie had shivered, but not with cold—a strange sad feeling stole over her. Dick, faithful, noble Dick, was far away, with his young vigorous life blighted by the cold touch of disappointment. She knew now that it must be so, and she took the shawl from Étienne la Harpe with a smile, and a little profusion of pretty French words.

Madame Jean that night came up to the bedroom occupied by Nellie and Amélie, and sat down on the window-seat while they loosened their hair. Nellie's was very long, and flowed all round her down to the knees when unbound.

"You are like a fair Magdalen, my child," said Madame Jean admiringly.

Nellie came and knelt beside her, putting her arms round her waist, "And you are lovely as Our Lady of Sorrows," she said. "Ah! why is there sorrow to hurt this beautiful, happy world?"

"Happiness is not everything, Nelline; live for anything! for love, for duty, for charity if you will, but not for happiness."

"There is nothing else for which I care to live," said Nellie, throwing back her long hair and looking up at her friend, "without it I should wish to die!"

"God help you, poor little sparkling fire-fly," said Madame Jean tenderly, "and God help the good, noble Englishman who loves you so!"

"How do you know that?" cried Nellie, starting and blushing crimson.

"I do not believe it ; he does not know what love is."

"Nellie ! Nellie ! and do you ?" cried Amélie, laughing.

"I can imagine," said Nellie hotly. "My cousin finds fault with me—true love would think me perfection!"

Madame Jean patted her cheek. "Well, well, *mignonne*," she said, "your good friends will take care of you, you need not worry your little self about such matters. Go to bed and sleep."

CHAPTER IV.

THE sunny days passed on.

"How changed is Monsieur le docteur," said Jeannette to her fellow-bonne. "Formerly he was out all day, now he spends all his time at home, and he is absorbed—*distracte*. He smokes less, he uses double the perfumes. What is it?"

"Dame ! it is not difficult to see !" said Célestine, shrugging her shoulders.

"My wife," said Monsieur la Harpe very gravely, "I have something of importance to say to you."

Monsieur la Harpe looked startled ; it was not often that her husband originated an idea, but when he did, it was very often a good one.

"I listen, my friend," she said.

"We need go no further in our correspondence with Monsieur and Madame Lagrange. Étienne will never marry their daughter."

"What ! never marry her ! a young lady with 65,000 francs ! Madame Lagrange would never have given a thought to Étienne but for this excellent position he has acquired."

"No matter," said Monsieur la Harpe, "he will never marry her."

"But why, my friend ?" said his wife, with suppressed ire, and a lurking dread that her own suspicions might be confirmed by his answer.

"Because he has lost his heart, and set his whole affections on the little Englishwoman."

"Good Heavens !" she exclaimed, sinking heavily into a chair.

Monsieur la Harpe rubbed his hands. "I have been reflecting, *ma femme*," he said.

She looked up with a ray of hope—his rare reflections were apt to be good.

"I propose to say nothing to Étienne," he said, "but to write to that good Englishman myself, to see whether an arrangement could be arrived at. These Englishmen are rich ; he is her nearest relative ; it is for him to settle her in life ; at all events we shall hear what he has to propose. If the affair fails, it will be time enough to thwart Étienne, but I am not without hope. Hist ! not a word ! let us keep this little affair between ourselves."

Monsieur la Harpe smiled and sighed. "*Mon ami*," she said, "*finesse* is required. What do you say ? Shall we not break off finally the Lagrange affair, but leave both open for the time ? Étienne may be in love, but he is too much a man of the world to let that interfere with a business arrangement such as marriage."

"It is possible !" said Monsieur la Harpe, "but God forbid that we should have another child with eyes like those of Jean's wife !"

"Bah ! men are made of quite another paste," said Madame la Harpe.

Monsieur la Harpe went to the window, and by a jerk at the string of the *persiennes* enabled himself to see out.

"Look, *ma bonne*," he said. "Judge for yourself."

The young people were all on the terrace, Amélie and Madame Jean seated and both embroidering, Nellie filling a large earthenware pot with a huge wild bouquet of sweet roses ; by her side stood Doctor Étienne, in his attitude, the turn of head, pose, everything, the look of *empressement* almost peculiar to a Frenchman. He seemed to be speaking very earnestly, for they saw Nellie suddenly pause and look up at him, her eyes met his, and suddenly the bright pink color flushed her fair little face ; she seemed to hesitate, then shyly took up a little rose and handed it to him. He pressed it to his lips with passion, and Nellie, gathering up all that remained of her flowers into her gown, went hastily over to Madame Jean and kneeled down beside her.

"Oh la ! la !" exclaimed Madame la Harpe.

"Am I, or am I not a man of penetration ?" said her husband smiting his breast. "I go in, I write."

Far away in sunny Berkshire, one

sweet fresh evening of the English summer, Dick Gordon and his mother sat in the garden under rustling linden-trees, when a large and important looking letter with a foreign post-mark was put into his hand.

"From Nellie, Dick?" said Mrs. Gordon.

"No! but from Sauveterre all the same." He glanced at the signature.

"From the old father; how odd! What can he have to say?"

"Nellie has not written for some time," said Mrs. Gordon, looking rather wistfully at her son.

He did not answer; he was reading the letter, and though a fair French scholar, the small near handwriting seemed not quite easy to decipher.

Dick read it quite through, then without a word of comment he handed it to his mother.

"Mother, the evening is fine, I am going for a long walk," he said. She thought that there was something a little odd in his voice, but before she could speak, he was gone, she heard his footsteps crunching the gravel, then a hollow sound as he crossed the rustic bridge over the little river, and he was gone.

The tears rose to Mrs. Gordon's eyes, but she brushed them quickly away, put on her spectacles and read the letter:

"MY DEAR MONSIEUR:

"You may recollect that at the time of the interview I had the honor to have with you, I undertook to watch over and take care of your charming young cousin as a child of my own; at that time neither I nor my wife could foresee how much her amiable character, her beauty, her freshness and her piety would endear her to us all. You have doubtless heard from Mademoiselle Nellie of the arrival at Sauveterre of my second son Étienne, medecin-en-chef de l'hôpital militaire de... en Alger. This grade he has recently attained: it is a fine position, especially when acquired at so young an age; my son is twenty-four years of age. His mother and myself before consigning him to so distant a station are anxious to marry him, and already a very desirable alliance has presented itself. But youth will be youth. My son has become madly in love with Mademoiselle your cousin.

It is with difficulty I write, terrified lest you should perceive in me the smallest absence of delicacy when I venture to say that Mademoiselle Nellie, with every discretion, yet appears favorably inclined toward him. You are aware, my dear Monsieur, that these things are affairs of business. I therefore venture to ask whether any arrangements could be made, so as to avoid the sacrifice of these youthful and interesting sentiments. My son, with an income from his appointment of 12,500 francs a year, enjoys also the interest of the sum that he will inherit at my death, namely 100,000 francs. You will naturally understand that when a man has a competence so comfortable to offer, that his parents hope for some reciprocity in choosing a wife for him. With the assurance of my profoundly distinguished sentiments, I am,

"JEAN MARIE ÉTIENNE LA HARPE."

Mrs. Gordon laid down the letter with a little gasp. "My poor boy," she said to herself.

The air blew chilly through the trees. She drew her shawl round her, shivered, and went indoors.

She could not go to bed or rest. She waited in her room, as the slow hours struck one after another, till she heard Dick's step on the stairs—a slow, heavy step, as of a tired man. She slipped out into the passage, and met him at the door of his room.

"Good-night, mother," he said, kissing her very affectionately. "Good-night, dear mother."

That was all that was ever said between them to betray poor Dick's buried hopes.

CHAPTER V.

MONSIEUR and Madame la Harpe awaited with ill-concealed impatience the answer to his letter. Things were not quite easy to manage. The Lagrange family were beginning to dislike the procrastination and indecision of the La Harpes' proceedings. It was even intimated that before the week was over, Madame Lagrange would arrive in Sauveterre, and this idea was by no means agreeable to the La Harpes.

But on the first day that an answer from England could have been reasonably expected, it came.

Monsieur la Harpe and his wife, both quite tremulous with excitement, had a little mild contention as to who should break the seal, in which the lady prevailed.

"Heavens! what writing!" she exclaimed.

"Colossal, but legible," said Monsieur la Harpe, and he slowly read as follows :

"MY DEAR SIR :

"My cousin will have a fortune of 125,000 francs. But before finally consenting to such a marriage, as you do me the honor to propose, I should prefer making the acquaintance of Docteur la Harpe. I propose, therefore, to arrive in Sauveterre the day after your receipt of this letter. Yours, etc."

"Most satisfactory," said Monsieur la Harpe complacently. "It more than doubles Étienne's fortune."

"Yes," said Madame la Harpe gloomily. "It is delightful, but oh, *mon ami*, if he should not arrive before Madame Lagrange!"

Monsieur la Harpe shrugged his shoulders.

"Let us not anticipate misfortunes," he said. "And now to tell Étienne."

He opened the door and called his son. The young doctor came in twirling his mustaches, with defiance in his face.

Monsieur la Harpe was seated pompously, his hands spread on his ample tartan waistcoat.

"My son," he began, "on the subject of your marriage."

"Papa," said the young man firmly, "my affections are engaged. It is with infinite pain, but without hesitation, that I am obliged to refuse the proffered alliance."

"Sir! Your affections are engaged!" cried Monsieur la Harpe, indignation in his tone, a twinkle in his eye.

"Irrevocably," was the answer, in a voice of despondency.

"And may I ask the name of the young lady?"

"Need you ask?" said Étienne, throwing out both his hands. "When you yourself have presented me to her under your own roof. *Sapristi!* one has eyes."

"Is it Nellie Grey?"

"Ah, Papa!"

"My son; I bestow her upon you!"

A little cry of astonishment, then Étienne threw himself into his father's arms and kissed him on both cheeks, immediately repeating the little scene with his mother.

They showed him Dick Gordon's letter, of which he approved highly, and he readily agreed to his parents' suggestion—that not a word should be said to Nellie until after her cousin's arrival.

The next day Madame la Harpe, having quite forgotten that Nellie Grey was still ignorant of her cousin's proposed visit, spoke of it in the middle of the twelve o'clock breakfast.

"Nellie," she said, "we shall hear the horn of the diligence about five o'clock, and Monsieur, your cousin, is sure to come by it."

"My cousin coming?" cried Nellie, very much startled. "Indeed, Madame?"

"Ah! I ought to have told you, *mignon*. Yes; he has consented to come at last and pay us a little visit."

"We shall be delighted to see him," said Madame Jean kindly.

Nellie did not quite know what to say. Her cheeks burned, her head throbbed, so various and conflicting were the feelings the news awakened in her.

Docteur la Harpe, seeing her confusion, was seized with a fit of jealousy, and went away for the whole afternoon fishing in the Gave.

"One would imagine you were not altogether pleased to see your cousin, Nellie," said Madame Jean a little sadly.

"I don't know," said Nellie, pushing her hair away from her temples with a rather bewildered look. "I cannot tell whether I am or not."

"But why, *mignon*? He is so good and kind, and so fond of his little cousin! Why, what is it, child?"

For Nellie had suddenly put her arms round her, and burst into tears.

"It is nothing," she said, drying her tears, but with a catch in her voice. "Only I am angry with myself. We were so happy and peaceful, every day succeeded each other with so much that was delightful. I am a little sorry that any change should come."

" And you think that your good, loving cousin's arrival will interrupt this happy state of things ? " said Madame Jean, a little severely.

" No, no ! I don't know what I mean. Do not think badly of me ! But Dick finds fault with me."

" He loves you dearly."

" Yes, yes ! Don't you understand ? A great deal too much. I am not good enough ! It oppresses me."

There was petulence in her voice. Madame Jean understood all. She wiped away the tears with her handkerchief.

" Well, don't cry any more, *mignon*, or he will think we do not make you happy."

" Oh ! he can never think that," cried Nellie startled.

" I don't see how he can think otherwise, my child, if you meet him with red eyes and a little red nose."

" I will run up for some rose-water."

Madame Jean looked after her as she ran away, with a smile and a little sigh.

" I hope the poor, brave, good Englishman will not take it too much to heart," she said to herself.

Dick Gordon arrived duly by the diligence. He went first to the inn to make some improvement in his appearance, as he had travelled day and night, but before seven o'clock he arrived at the Maison de Mabendie, and found the whole party just rising from table.

It was exceedingly hot. The gentlemen were clad in white linen from head to foot.

Nellie put out a very cold little hand to meet her cousin, and hardly ventured to look up at him ; but when she did so, she gave a little start.

" Oh, Dick ! Dick ! Have you been ill ? "

" No, Nellie ; certainly not. What makes you think so ? "

" You are so changed."

Dick's face had grown very thin, which made his eyes look much larger, and a great deal of his brown, ruddy color was gone, and his expression was much graver, firmer, and older.

" I do not think I can be more changed than you are, Nellie," he said.

" Am I changed ? " she said a little coquettishly, conscious of trained curis

on her brow instead of the old natural silky waviness, and of considerable alterations in dress.

" Yes, very much ; you look older and more sedate, and you have become quite a little Frenchwoman."

Nellie had half expected a compliment, and missed it. She gave a little shrug of the shoulders.

In the evening Dick Gordon and the two parents had an interview ; it was almost, but not quite satisfactory. If Nellie should consent to this marriage, her cousin would settle five thousand pounds on her, but the money was to remain in England, in securities chosen by himself, and in the hands of trustees. Monsieur la Harpe would have preferred that his son should have the sole command of the money, but Dick was inexorable, and after all, as the old gentleman said, " Nowhere could it be in safer hands than in those of this most amiable of cousins."

It was proposed that Dick should speak to Nellie the following morning. He shrank from the duty, and even proposed that the young doctor should be permitted to plead his cause, but this idea was received with such horror that Dick perceived himself to have been guilty of an indiscretion of some enormity and, inwardly chafing against all this nonsense as he deemed it, he consented. The opportunity came immediately after breakfast. Dick stopped Nellie as she was following Amélie out of the room.

" Nellie dear, I want to speak to you," he said gently. She became rather pale, but came obediently back into the dining-room.

" They will be coming to take away the things," said Dick nervously. " Can't we go somewhere where we shall not be disturbed ? "

Nellie did not speak, but led the way into a small unused *salon*. Dick walked to the window, and began to speak with his back to her.

" Nellie," he said, " I have something very important to say to you, and I don't know how to begin. You see, in England a man proposes for himself, but here it is different. Monsieur and Madame la Harpe have asked me to speak to you about Doctor Étienne."

"Ah!"

Dick turned round abruptly. Nellie was standing with her hands straight down before her, clasped tightly, her face raised, her fresh lips parted, and a glowing tender light in the blue eyes upraised and fixed on vacancy, that he had never seen before.

His head sank on his breast.

"I think I need not ask," he said gently, "what your answer will be. Will you marry him, Nellie?"

"Yes."

The word was hardly breathed.

Dick turned away for a moment, passed his hand quickly over his face, then came forward abruptly and took her hand.

"Nellie," he said, his lips quivering in spite of every effort, "you are very young; I stand in the position of brother or even of father to you. Let me ask you to consider. Etienne la Harpe is a good, honest, well-conducted man."

The words seemed to jar upon Nellie. She drew her hand away.

"No, hear me, dear," he said gravely. "To marry him you must resign your country, your home, all the habits of your youth, indeed even your old friends."

"All this is nothing," she said.

Dick turned away, this time bitterly wounded, but he would not show it. He smiled bravely and said, "I have certainly said enough, Nellie, and Doctor Étienne may now plead his own cause. I will go and tell him."

She put her hands on his arm and looked up at him.

"Before you go, Dick," she said, "say, 'God bless you, Nellie.'"

"God bless you, my own little sister."

"And you—you don't mind, do you? You know," falteringly, "you always found fault with me."

"Well, Nellie, never again! I have resigned all my right to do so. But did I? I don't think I did; but let me go."

Dick went downstairs. He said two words to Doctor Étienne, who dashed upstairs three steps at a time; then he took his hat and went out.

Madame Jean passed him, and caught

a glimpse of his white set face. "Ah, mon Dieu," she sighed, "the world is very sad."

But there were two upstairs who did not think so.

CHAPTER VI.

DURING the few weeks of preparation before the wedding, Dick Gordon went away, travelling to Pau and Biarritz, then over the mountains into Spain. He stayed away till the very day before the marriage.

The ladies had often bewailed the shortness of the time, but Étienne must go to Algiers to begin his new duties, and *modistes* and *lingères* must be hastened accordingly.

Dick Gordon gave his cousin two hundred pounds for her trousseau, and the result was charming.

On the very day on which Étienne and Nellie were married, old Benoîte's son was ordained.

"A good omen!" said Madame Jean.

The last moment came, all must separate; bride and bridegroom bound to their far-distant home; Dick back to England with a weary weight of chill disappointment on his young heart; Madame Jean, strong to suffer and strong to pray, left at Sauveterre.

There were tears and sobs and kisses. Doctor Étienne twisted his mustaches and looked on.

"Take care of her," said Dick, his warm grasp hurting the young Frenchman's delicate hand.

"That is the affair as much of my honor as of my heart," he answered, and embraced Dick on both cheeks.

Nellie leant forward in the carriage as they drove away, watching till the very last. A little tiny pang stole across her even then. Dick was nearly a head taller than Étienne or any man there. "It is all very well," she said to herself a little impatiently, "but poor dear Dick puts every one out of proportion."

Dick Gordon went home. He found his mother waiting for him at the door.

"Well, mother dear," he said, "I have married her."

"My dear Dick, what?"

He gave an odd little laugh.

"I have become so used to French

ways," he said; "I have married her to Dr. la Harpe."

"I hope she will live to repent it," said Mrs. Gordon, a hot, burning feeling rising in her breast against the girl

who had brought the shadow on her son's life.

"God forbid," said Dick hastily.—*Temple Bar.*

AN AUTUMN MORNING.

APTER a night of storm, the morning breaks,
Gray, soft, and still,
Each little bird within its bush awakes,
A voice in feathers, and with right good will
Tunes up for the sweet music birds have played
Since the glad day when little fowls were made.

The swarthy crow alights upon the field
Mid silver dews;
His keen eye marks the savory grub concealed,
Nor fears he for the wetting of his shoes;
Woe to the worm who crawls abroad, a prey
Where hunger waits with cruel beak to slay.

Hunger, imperious lord, thy stern decree
Brooks no dispute;
Never a despot wielded spell like thee,
O'er reasoning man, and ruminating brute—
Old serpent, in thy coign of vantage curled,
Thy well-poised lever moves the mighty world !

Who whets the sickle for the golden corn
On yonder hill?
Who wakes the reaper in the misty morn,
To garner crops for sleepers lying still?
Restless and ruthless master, at thy call,
Harvests are reaped, and Sloth will leap a wall.

Who gives a savor to the poor man's bread
No monarch tastes?
Wins the rare pearl thro' peril dark and dread?
Plants a fair garden in deserted wastes?
'Tis thou, great motive power of mortal toil;
And fruit is plucked when thou dost stir the soil.

Yea, fruit is plucked—what cries of muffled glee
Arouse mine ear?
Away, ye manikins, that apple-tree
Bears fruit forbidden! Ah, the case is clear,
The royster wind last night hath wrought me ill,
And boys are boys, with many a void to fill.

In ragged breeches, pockets have no holes,
An instinct wise
In thrity mothers—they, poor patient souls,
Must build up life with small economies;
They mend their nets, and have their sure reward,
Rough winds blow dumplings to the frugal board.

But, lo ! the gallant sun comes forth to cheer
 All hearts and eyes ;
 Across the stream's bright mirror, shining clear,
 The little dabchicks skim with joyful cries ;
 And in cool depths, below the bridge's rail,
 The old trout lies, and moves a cautious tail.

The cows that pasture by the river's brim,
 Contented eat ;
 And feeding, in the distance, golden dim,
 On the hill acre where we cut the wheat,
 Sheep, stepping slowly through the stubble, seem
 A flock in fairy-land, where poets dream.

O Autumn Morning, sweet enchantress, rest,
 Fly not so soon !
 Whisper thy secret to this troubled breast,
 For all the world is listening ere the noon ;
 Alas, already shines the perfect day,
 The magic morn hath vanished away !—*Temple Bar*

AMERICAN MILLIONNAIRES.

THE remarkable letter of the *Times'* Philadelphia Correspondent, published on Tuesday, illustrates what is believed in America to be the greatest or, at least, the most immediate of American social dangers—the growing prominence of the Plutocrats, and the growing jealousy with which they are regarded. We have nothing in England quite like the American millionaire. We have rich men on this side, but with the possible exception of the Rothschilds, who are not English, and of whose position nobody knows anything accurately, our Millionnaires are not so rich, are not so prominent in the national life, and are not inclined to devote themselves solely to affairs. Nobody hears much of Lord Overstone, perhaps of all British subjects the man with the largest available resources ; and the lesser millionnaires, men with from two millions to five, either "found families," a process which involves large purchases of land and comparative obscurity ; or take to art and culture ; or, like Sir T. Brassey, range themselves into the system by accepting office. We cannot recall a man who makes himself very visible by his use of money alone, and still less one who makes himself obnoxious. Baron Grant wanted to do the former, but did not succeed, and now is only remembered by Emma shareholders, and the cos-

mopolitans in rusty coats who sit about on his seats and enjoy the dreary liveliness of Leicester Square. In America, however, the millionaire is what a King is in Europe—an object always of perpetual notice, and often of fanatical detestation. Owing partly to the immense spaces, partly to the diffusion of wealth, and partly to habit, almost all great undertakings in the Union, and more especially undertakings in the interest of communication, are carried on nominally by corporations, and these corporations tend to fall under individual control. The Americans, to begin with, prefer the Presidential system to the Parliamentary in all things, and leave to individuals whom we should call Chairmen, far more direct power than Englishmen usually do. They do not use, moreover, the checks by which we habitually prevent single men from monopolizing stock in any concern, and then governing it at their own discretion. The notion of one man owning all the shares in the Bank of England, and appointing all the Directors, would horrify Englishmen. An American with a great fortune can buy a Joint-Stock Bank, or a railway line, or a great telegraph system, and govern it as he pleases ; and he has many temptations to do it. He wants occupation, he wants power, and he wants status ; and

the control, say, of a railway, with its stocks, its contracts, its patronage, and its importance to State Governments, gives him all he wishes for, beside a prospect, if he manages well, of indefinitely increasing his pile." What Americans want with colossal fortunes we can hardly imagine, for they get little that Englishmen think pleasant out of them; but they do want them, and set before themselves pecuniary ideals which to Englishmen seem fabulous. Capitalists who should know tell us that Mr. Stewart, with nineteen millions, was not the richest American alive, one man, at least, possessing a much heavier impediment to carry on his road to heaven. With a million and a few six-pences an Englishman is inclined to retire, and pursue his tastes in quiet; but an American is just beginning to "operate" on the grand scale, and with a sense of power and freedom. With that money, he begins to use his brains. An American millionaire, therefore, often makes himself master of some grand concern, or group of concerns, and is thenceforward a sort of King, governing as he pleases, pushing his "policy" as against other "policies," fighting huge corporations, defying the public, with which he is sure, sooner or later, to come into collision, corrupting State Governments, and even influencing the Government of the Republic. He occupies the position at once of a great company and a great aristocrat, and as he has usually as few bowels as a company, and is as self-centred as the great aristocrat, he is hated as neither is hated in this country. And there is often cause for hate. Nothing can be more vexatious to a community than that a single man should control all telegraph lines, as on the eastern side of the continent is nearly the case in America, or should be able to make or destroy entire cities, counties, and methods of industry, by altering railway routes or rates—things entirely within Mr. Vanderbilt's power, or Mr. Jay Gould's—throughout great States; or not only own, but insist on doing the repairs for half a city, like Mr. Astor in New York. A feeling grows up that the individual should be made responsible for the use of such gigantic power, even

though it be derived from property, just as it would grow up here, if the Grosvenors, the Russells, or the Bentinck ladies used the enormous powers in their hands through their ownership of West London in any whimsical way. Respect for property is stronger here than in the Union; but just let the Duke of Westminster order his tenants, as leases fall in, to paint all their houses black. This feeling is more bitter against individuals than corporations—naturally, because the latter create less sense of individual and unreasoning will; and in America it rises to such heights, that the most prominent millionnaires, Mr. Vanderbilt and Mr. Jay Gould, are in nearly as much danger from dynamite as ordinary European Kings. Of course, any appearance of absolutism, and especially, of coarsely cynical absolutism, in their management, deepens the feeling, both on its good and its bad side, rousing mere envy into hatred, while it gives to the hatred the excuse of patriotism. We can well believe, therefore, that when, a few days since, Mr. W. Vanderbilt, in presence of an "interviewer," believed by his readers to be trustworthy, openly "damned the public," and declared that anti-monopolists "don't come so high," but are always purchasable at reasonable figures, all America began discussing his position. The sentence was probably not so brutal as it reads, for a "black-mailer" would be very likely to avail himself of a popular feeling to extort terms; and naturally Mr. Vanderbilt confuses such men, whom he often sees, with the patriots, whom he does not see; but the speech, supposing it spoken, reveals a habit of purchasing legislators, and so far justifies the strongest suspicion that can be formed as to the fairness of the means by which the great monopolists seek their ends. It shows, moreover, that the American world cannot be sure that immense pecuniary power will be tempered by great public spirit, or that its possessors will never be tempted by large profits to themselves or their stockholders consciously to inflict injury on the public. They did do it in the famous Gold Ring, and Americans, with that experience behind them, are rightfully jealous, and ask what would hap-

pen if Mr. Vanderbilt saw his way to raise dividends by impoverishing the people?

The remedy for this state of affairs is not very easy to find. That public feeling in America will grow more bitter, we have little doubt, as little as that respect for property will not of itself check remedial action. Some of our readers may think that unreasonable; but if one of these Americans came over here, and shut the Bank of England, or bought all its shares, as he easily might, or produced a "Black Friday" every year, by withdrawing gold, as he also easily might, or knocked all investments to pieces by perpetually "cornering" Consols, which is not so impossible as it looks, we doubt if English scruples about legislation against individuals would be irremovably strong; and Americans regard the "people" and the "country" as old Legitimists regard the King. They sometimes feel as if there were treason, where we should only see oppressiveness. But to say that they will at last do something, is not to discern the method they will adopt. A much sharper Statute of Distributions for properties exceeding a million, a statute absolutely compelling division on pain of the State stepping in as heir, would palliate the evil, for it takes two generations to make fortunes colossal, and to place them in young hands; and such a statute would not be wholly inconsistent with American sentiment. They do not actually legislate against Wills, but juries very often upset them upon grounds which are really reasons of public sentiment. An easier way would be to create a Board of Control for gigantic concerns, just as we did for the East India Company, and have done recently for the collective Railway Interest; but the Americans are hampered by their Constitution. When evils rise to a certain height, the popular will has nothing to act through. It is very difficult for a single State to

act, in the face of the clauses in the Constitution about breach of contract and special taxes, and we are not certain of the right of the Central Legislature. We do not ourselves see anything in the Constitution of the Union which should forbid Congress to expropriate with compensation any property whatever which it is of national importance that the nation should possess; and the power of expropriation implies rights of control, in the public interest. Nor do we see, either, why Congress should not legislate for all means of communication, as it does for the Post Office, and, in fact, embrace all within the control of that establishment. American lawyers, however, shook their heads over Emancipation by law, except as an incident of the War; the States would be jealous, as usual; and hitherto the control of Railways has been considered, as was shown in the Illinois agitation for lower rates, within State purview. The millionnaires will, therefore, we conceive, be protected by legal difficulties, until on some fine day some one of them does something which touches general feeling to the quick, and produces one of those resolves to be done with the evil which in America, as in England, so enlighten Constitutional lawyers. A "latent power," or a "legal fiction," or the possibility of an "amendment," will then be discovered pretty fast, and the world will wonder where the difficulty was. Before that happens, however, we expect fully to see a Central Syndicate in New York composed of millionnaires only, and controlling all telegraphs, all railways, and consequently not only all intercommunication, but all prices. The members of that Syndicate, if they could only keep alive a twelvemonth—which might be difficult—would at the end of the time smile at the Rothschilds as persons who, in the petty businesses of Europe, were accounted very rich.—*The Spectator*.

WALT WHITMAN.

BY G. C. MACAULAY.

IN publishing, some fifteen years ago, a volume of selections from the works of Whitman, Mr. Rossetti considered that he was preparing the ground for the

ultimate publication in England of a complete edition of the poems of that remarkable, if rather eccentric, writer. That event has now at length taken

place (though not, it seems, without unforeseen difficulty of some kind, marked by a long interval between the advertisement and the appearance of the volume, and by a change of publishers apparently at the last moment), and London can at length supply us from its own resources with copies of "Leaves of Grass,"* under which title the author apparently now wishes to include all his poetical works up to the present time. We are presented at the same time with another work of the same author, the preface to the first edition of "Leaves of Grass" (published 1855 in a thin quarto, type set up by the author himself), which is now not easily to be met with. This preface was not reprinted in subsequent editions, but was prefixed with some omissions by Mr. Rosetti to his volume of selections. For what has been given us we must be thankful, though we may mildly complain that Whitman's other prose works, consisting of two books—one a magnificent political prophecy, and the other a personal narrative of deep interest—are apparently to be withheld from the English reader, though long ago advertised as published or to be published in company with the preface afore-mentioned. Even in America, says a personal friend of the author, these books can hardly be said to have been published, though readers occasionally find them out, and certainly in England they are little enough known. The reader at the British Museum may find there a copy of "Democratic Vistas," but he will search in vain for "Memoranda during the War."

Meanwhile, however, a real service has been rendered to us by the publication in London of "Leaves of Grass," and against the printing of the volume there is nothing to be said; it is, in fact, a fine specimen of typography, with few apparent misprints, excellencies which no doubt are fully appreciated by the author, who knows practically what printing is. For those who are acquainted with previous editions of the poems this publication has an interest of its own quite apart from the fact that

it is the first complete English edition. There are poems contained in it which have either never appeared before, or only in a separate form not readily to be obtained in this country, as, for instance, the "Song of the Exposition," "After all not to create only," with its funeral chant for feudalism, which has passed now to its charnel vault

Coffin'd with crown and armour on,
Blazoned with Shakspere's purple page
And dirged by Tennyson's sweet sad rhyme.

There are also throughout the poems changes of title, omissions, and corrections, such as the author continually makes in his works, for, rough as they seem and often are, the roughness is not caused by want of revision; and, finally, the poems are rearranged, sometimes under new heads altogether, such as "Autumn Rivulets," while "Passage to India" remains only as the title of a single poem, which in 1872 gave its name to a whole volume. But to mention these in detail, and to estimate the effect of them taken together, would be impossible without assuming in the reader a previous knowledge which in most cases he would not possess. We must confine ourselves at present to more general considerations.

Whitman has been the object of a good deal of enthusiastic and rather undiscriminating admiration, and also of a certain amount of furious and equally undiscriminating abuse. Neither is deserved, but he lays himself open, it must be said, almost equally to both. It is time, however, that an attempt were made to arrive at a sober estimate of his real value; and to the formation of such an estimate those should contribute who, having carefully considered the writings of the man, feel his influence strongly indeed, as all such will, but are not overpowered by it, and see his great merits plainly without being thereby prevented from seeing plainly also his great excesses and defects. A few of such critics have already essayed the task, but it will hardly be said that there is no room for more.

I.

It is said, and, so far as I know, said truly, that this prophet is not honored in his own country. This does not mean that his books have not been

* "Leaves of Grass." By Walt Whitman. London, David Bogue, 1881. "Leaves of Grass." Preface to the original edition, 1855. London, Trübner & Co., 1881.

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bought and read ; indeed, the number of copies sold of the first editions of "Leaves of Grass" is to me rather a subject of surprise. Astonishment at the audacity of the venture must have had some share in raising the public interest, for the book unquestionably sold well. Nor does it mean that the merit of the author was quite unrecognized ; on the contrary, by some who were most competent to judge, he was estimated at a very high value. "The most extraordinary piece of wit and wisdom that America has yet contributed" was Emerson's verdict on the book, and Thoreau thought he saw something almost more than human in the personality of the man. But the mass of his countrymen were not and are not strong enough to accept him ; they have perhaps too little confidence in their own literary originality to appreciate duly one from among themselves who breaks through all the conventional usages of literature ; they have too much squeamish delicacy to admit to their society one who is so brutally outspoken and unrefined. It is necessary perhaps that this writer, for we need not be zealous to claim for him the title of poet, should be first accepted in the Old World before he can be recognized by the New, which at present can see nothing in literature but by reflected light. Strange irony of fate, if such should be the destiny of one who cast off the conventional forms in order to free himself and his country from Old World influences ! "The proof of a poet shall be sternly deferred till his country absorbs him as affectionately as he has absorbed it." This he has said and still believes, waiting in confidence for that proof of his title to be forthcoming. But there are many reasons why he should be slowly if at all admitted to his rights, whether in Old World or in New, and to glance at some of these reasons before we proceed further will not be amiss.

He is perhaps of all writers the most repellent to the reader who glances at him superficially. In the first place he is indecent, and that too not accidentally but on principle. Whatever may be thought of his morality, and that I hold to be essentially sound and healthy, it cannot be denied that in one section of his work, and occasionally throughout

the poems and prose, he outrages every ordinary rule of decency. There is nothing impure in this kind of exposure ; it has indeed the direct antithesis to prurient suggestion, and the intention of it is unquestionably honest, but from an artistic point of view it is the gravest of faults, it is essentially and irredeemably ugly and repulsive. We are most of us agreed that there is and ought to be a region of reticence, and into this region the writer has rushed himself and drags us unwillingly after him. He stands convicted of *dmetopokalia*, if of nothing worse. Akin to this first instance of defect in artistic perception is a second—his use, namely, of words which are either not English or essentially vulgar ; and to this must be added a not unfrequent neglect of syntax, which, together with looseness in the application of some words, makes him at times vague or unintelligible. Occasionally there occur words or expressions which, though not ordinarily found in literature, have a native force which justifies them ; but generally it is the case that for the French word or for the vulgarism savoring either of the gutter on the one hand or of the Yankee penny-a-liner on the other might be substituted a good English word equally expressive. But here also we too probably have before us a fault of wilfulness, for we know that he will not allow the language of English literature to be large enough for the poets of America, but expects accessions to it from Tennessee and California. If, however, he has in his choice of words sought that simplicity which (to quote his own words) is "the art of art, the glory of expression, and the sunshine of the light of letters," he has certainly not seldom failed to attain it, and it was hardly to be attained by pouring out indiscriminately into his pages the words which ran naturally off his pen. The "art of sinking" is illustrated in his juxtaposition of the most incongruous things, and this especially in his well-known catalogues, which, though sometimes picturesque and interesting, are generally only absurd and dull. The fact that they are introduced on principle is not to be admitted as an excuse for their inartistic and formless character, any more than a similar excuse is to be allowed for offences against

decency. From many of these faults a sense of humor would have protected him ; and this also might have preserved him from some of that violently feeble exaggeration with which he speaks especially of his own countrymen and their institutions, and from the parade with which he sometimes announces truisms, as if they had been just now for the first time discovered by himself. His defence on the general charge is finely given in a poem now published for the first time, written in Platte Cañon, Colorado.

Spirit that formed this scene,
These tumbled rock-piles grim and red,
These reckless heaven-ambitious peaks,
These gorges, turbulent-clear streams, this
naked freshness,
These formless wild arrays . . .
Was't charged against my chants they had for-
gotten art? . . .
But thou that revelest here, spirit that formed
this scene,
They have remembered thee.

But the grandeur of nature is not always to be attained by heaping together uncouth masses. We complain not so much that the work lacks polish, as that the writer has not been preserved by his own native genius from ugly excrescences.

These artistic defects and his general disregard of form make many of his works repulsive, and do not allow us to accept any one as faultless. But they are mostly such as expurgation could remove, and therefore are not vital. The characteristic which cannot be got rid of, and yet repels, is his intense egotism and self-assertion. His longest, and in some respects most important, work—a poem of twelve or fourteen hundred lines, with which the original "Leaves of Grass" opened—has or had his own name as the title* and his own personality as the subject ; and this self-assertion of the individual is perhaps the prevailing characteristic of Whitman's work, that which makes it in fact representative in some degrees of the spirit of the age ; and the egotism, after all, is not so much personal as typical. The poet is a Kosmos, and contains within himself all unity and all

diversity. What he claims for himself he thereby claims for others on the same terms. "Underneath all, to me is myself, to you yourself." We feel when the poet proclaims himself "an acme of things accomplished," for whose birth all the forces of the universe have been a preparation, he is speaking less for himself individually than for humanity, the humanity of his own day and of future days. The egotism becomes more offensive when it is obviously personal and indicates himself as the Michael Angelo of literature ; and that, it must be admitted, is not unseldom, though here too he claims to be speaking less for himself than for the future race of democratic poets. To these charges it may be added that, notwithstanding his boasted freedom from the trammels of conventionality, he is in his more ordinary work a mannerist of the most vulgar kind. "Oh ! to realize space !" "Have you reckoned a thousand acres much ?"

"Has any one supposed it lucky to be born ? I hasten to inform him or her that it is just as lucky to die." "I have said that the soul is not more than the body, and I have said that the body is not more than the soul." "I swear I think there is nothing but immortality, that the exquisite scheme is for it, and the nebulous float is for it, and the cohering is for it !" If these are not all exact quotations, every one will recognize them as genuine types. No style lends itself more readily to parody and burlesque. But when he is at his best the mannerism is in a great measure shaken off.

The disregard of metrical uniformity is another fact which is observed by the most superficial reader, and probably repels him, but with far less reason than the points above mentioned. It is not indeed correct to say that "there is no trace of rhyme or metre" in these poems. There is at least one poem which affords an instance of perfectly regular metre and rhyme throughout, and in another the regularity in these respects is all but complete ; while in some others, such as "Pioneers" and the "Dirge for two Veterans," though there is no rhyme nor an absolute uniformity in the length of lines, there is a stanziac uniformity, which satisfies, or almost satisfies, the conventional expec-

* The title "Walt Whitman," which this poem has generally borne in American editions, is now altered to "Song of Myself."

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tations. As for the rest, some is quite formless ; but for the most part there is a strongly marked and characteristic rhythm, not strictly metrical, though with metrical tendencies, nor properly to be called the rhythm of prose. It has rather the monotony of a chant than the varied tones of the best rhythmical prose, though it must be said that it not only resembles but is identical with the early prose rhythm of the same author.* Every reader of the preface before us will perceive this ; and we are relieved from the possibility of doubt by the fact that passages from this preface have been introduced word for word, or with insignificant changes, into subsequently published poems, being divided stichometrically into lines by the natural pauses of the sentence. The words which he himself uttered in this preface on the subject of the rhythmical uniformity are among the best which have been spoken on that subject yet, and no apology is needed for quoting them.

The poetic quality is not marshalled in rhyme or uniformity . . . but is the life of these and much else, and is in the soul. The profit of rhyme is that it drops seeds of a sweeter and more luxuriant rhyme, and of uniformity that it conveys itself into its own roots in the ground out of sight. The rhyme and uniformity of perfect poems show the free growth of material laws, and bud from them as unerringly and loosely as lilacs and roses on a bush, and take shapes as compact as the shapes of chestnuts, and oranges, and melons, and pears, and shed the perfume impalpable to form. The fluency and ornaments of the finest poems, or music, or orations, or recitations are not independent but dependent . . . Who troubles himself about his ornaments or fluency is lost.

It has been said already that though Whitman's lines are not ordinarily

* It should be observed that in the later prose of "Democratic Vistas," a book which is comparatively free from his characteristic weaknesses, the writer attains to a prose style of much greater excellence. This book, with its Carlylian eloquence and anti-Carlylian optimism, is not more remarkable on account of the robust faith of the writer in the future of American democracy, than on account of his keen perception and vigorous denunciation of its present faults and failings, and is enough by itself to stamp him as a master of the English language, and a prose poet of the first order. The English reader who would understand the author's drift and hear the key-note of his philosophy, could not do better than begin with this book, but that it is in England almost unobtainable.

metrical, yet they have metrical tendencies, and this will readily be perceived by any one who reads them aloud. The prevailing rhythm is dactylic. Every reader of Whitman will recognize as characteristic the following examples, chosen purely to illustrate the movement :

Vigil strange I kept on the field one night ;
When you, my son and my comrade, dropt at
my side that day,
One look I but gave, which your dear eyes re-
turn'd with a look I shall never forget ;
One touch of your hand to mine, O boy,
reach'd up as you lay on the ground,
Then onward I sped in the battle. . . .

Or again—

It is well—against such I say not a word, I am
their poet also ;
But behold such swiftly subside, burnt up for
Religion's sake ;
For not all matter is fuel to heat, impalpable
flame, the essential life of the earth,
Any more than such are to Religion.

Not unseldom we find regular or slightly irregular hexameters, sometimes several in succession, and occasionally also pentameters, e.g.—

Do you not know, O speech, how the buds be-
neath you are folded ?

Or,

Borne through the smoke of the battles, and
pierced with missiles I saw them,
And carried hither and yon through the smoke,
and torn and bloody.

Or again (an elegiac couplet)—

Chants going forth from the centre, from Kan-
sas, and thence equidistant
Shooting in pulses of fire, ceaseless, to vivify
all.

But these are accidents. Let me call the reader's attention to one form of this rhythm which is doubtless the result of design, the occasional lengthening of line in passionate lyrical outbursts, which produces sometimes a remarkable effect of intensity in that it "crowds and hurries and precipitates" the notes in the eagerness as it were of the verse to find a cadence.

Whichever way I turn, O I think you could
give me my mate back again, if you only
would.

From these dactyls we pass to the inspiring trochaics of "Pioneers," and finally, as the poet grows graver in the more deeply spiritual songs of the soul and of death, which are among his last

productions, with the rapid flow of the earlier rhythm mingles the graver tone of the iambic, as in the remarkable poem called "Passage to India."

Passage indeed, O soul, to primal thought,
Not lands and seas alone, thy own clear freshness,
The young maturity of brood and bloom,
To realms of budding bibles.

Or again, in the still more recent "Song of the Redwood Tree"—

Nor yield we mournfully, majestic brothers,
We who have grandly filled our time;
With nature's calm content, with tacit huge delight,
We welcome what we wrought for through the past,
And leave the field for them.

But enough of the outward form : it is time that we examine more closely the value of the contents.

II.

If we were asked for justification of the high estimate of this poet, which has been implied, if not expressed, in what has been hitherto said, the answer would be perhaps first, that he has a power of passionate expression, of strong and simple utterance of the deepest tones of grief, which is almost or altogether without its counterpart in the world. Not often has he exerted his power, but often enough to let us understand that he possesses it, and to stamp him as a poet inferior to few, if any, of our time in strength of native genius, however he may fall behind many in artistic perception. Two poems of death, indicated often by himself as the highest theme, though not faultless, for none of his work is so, are enough in themselves to rest his claim upon. The first is "Out of the Cradle endlessly rocking;" and the other that funeral hymn for President Lincoln which begins, "When Lilacs last in the Door-yard bloomed." Nothing illustrates more strongly than these two poems the intense sympathy of the writer with nature, animate and inanimate, and the deep emotional significance which it has for him. Both are saturated with influences of sky, sea, or forest. The first is of the ocean, whose husky moaning is a fit accompaniment to the song of desolate loneliness ; the second is of the forest, whose pine-

fragrance is as the perfume of the sweet soul that is gone. In both the most passionate outpourings come forth in the notes of birds—the mocking-bird, the most magnificent of songsters, and the hermit thrush, the gray-brown minstrel of the cedar swamp, lyrical mourners whose chant is fused and translated into words by the ecstatic listener. Shelley's skylark pours forth a harmonious madness of joy, Keats' nightingale seems to be intoxicated with passionate yearning ; but never before has a bird poured forth to a poet a song so capable of stirring the depths of emotion in the heart, so heart-breaking indeed in its intensity of grief, as that of the long singer "on the prong of a moss-scalloped stake, down almost among the slapping waves." The burden of the first division of the chant is "Two together."

Shine ! shine ! shine !
Pour down your warmth, great sun !
While we bask, we two together
Two together !
Winds blow south, or winds blow north,
Day come white or night come black,
Home, or rivers and mountains from home,
Singing all time, minding no time
While we two keep together.

Such is the joyous and careless song of the two feathered guests on the seashore of Paumánok, when the snows had melted and the lilac scent was in the air, while every day the boy, curious but never disturbing them, peered cautiously at the he-bird, flitting to and fro, and the she-bird, "crouch'd on her nest, silent with bright eyes," till on a sudden, "may-be killed unknown to her mate," she disappeared, nor returned that day nor the next, nor ever appeared again. And thenceforward all the summer, day and night, over the surging of the fierce mother, the sea, the boy hears at intervals the solitary one who is left.

Blow ! blow ! blow !
Blow up, sea winds, along Paumánok's shore.
I wait and I wait till you blow my mate to me.

Often the child, gliding down to the beach, had stood with bare feet, the wind wafting his hair, with "the white arms out in the breakers tirelessly tossing," to listen and translate the notes of the demon or bird.

Soothe ! soothe ! soothe !
Close on its wave soothes the wave behind,

And again another behind, embracing and lapsing, every one close,
But my love soothes not me, not me.
Low hangs the moon, it rose late,
It is lagging—oh, I think it is heavy with love,
with love.
Oh, madly the sea pushes upon the land,
With love, with love.
O night! do I not see my love fluttering out
among the breakers?
What is that little black thing I see there in the
white?
Loud! loud! loud!
Loud I call to you, my love!
High and clear I shoot my voice over the
waves.
Surely you must know who is here, is here,
You must know who I am, my love.
Low-hanging moon!
What is that dusky spot in your brown yellow?
Oh, it is the shape, the shape of my mate!
O moon, do not keep her from me any longer.
Land! land, O land!
Whichever way I turn, O I think you could give
me my mate back again, if you only would,
For I am almost sure I see her dimly which
ever way I look.

* * * * *

But soft! sink low!
Soft! let me just murmur.
And do you wait a moment, you husky-noised
sea,
For somewhere I believe I heard my mate re-
sponding to me,
So faint, I must be still, be still to listen,
But not altogether still, for then she might not
come immediately to me.
Hither, my love!
Here I am! here!
With this just-sustained note I announce my-
self to you,
Thin gentle call is for you, my love, for you.
Do not be decoyed elsewhere,
That is the whistle of the wind, it is not my
voice;
That is the fluttering, the fluttering of the
spray;
Those are the shadows of the leaves.
O darkness! O in vain!
Oh, I am very sick and sorrowful.

* * * * *

O past! O happy life! O songs of joy!
In the air, in the woods, over fields,
Loved! loved! loved! loved! loved!
But my mate no more, no more with me!
We two together no more.

It stirs the boy's heart, and he feels
that it is toward him and not really
toward its mate that the bird sings, and
a thousand echoes have started to life in
his soul.
Oh, give me the clew! (it lurks in the night
here somewhere),
Oh, if I am to have so much, let me have more!
Whereto answering, the sea,
Delaying not, hurrying not,
Whispered me through the night, and very
plainly before daybreak,

Lisp'd to me the low and delicious word death,
And again death, death, death, death,
Hissing melodious, neither like the bird nor
like my arous'd child's heart,
But edging near as privately for me rustling at
my feet,
Creeping thence steadily up to my ears and
laving me softly all over,
Death, death, death, death, death.

This is the only solution of the cries
of unsatisfied love, and here lies the
highest problem which awaits the poet
always with its unconquerable, almost
unassassable, mysteriousness. This word
it is which he gives as the key to the
thousand responsive songs awakened in
him from that hour, the word which the
sea whispered, "like some old crone
rocking the cradle, swathed in sweet
garments, bending aside."* "Whispers
of Heavenly Death" is the title of one
section of these poems, and it is the
"Carol of Death" which forms the
centre of the second of the two poems
to which attention has now been called.
Splendidly imaginative is this "nocturne,"
with its three ever-recurring
chords, "lilac, and star, and bird." Of
more intricate construction than the
other and less directly passionate,
because expressive of a more reflecting
sorrow, it is yet a composition which
few can read or hear unmoved.

Ever-returning Spring, trinity sure to me you
bring,
Lilac blooming perennial and drooping star in
the west,
And thought of him I love.

The star is disappearing in the black
murmur of clouds, while cruel hands hold
him powerless; but his senses are steeped
in the perfume of the lilac and the
song from secluded recesses, "death's
outlet song of life," of the singer among
the cedars, while "over the breast of
the spring," through lanes and through
streets of cities,

Passing the yellowpear'd wheat, every grain
from its shroud in the dark brown fields up-
risen,
Passing the apple-tree blows of white and pink
in the orchards,
Carrying a corpse to where it shall rest in the
grave,
Night and day journeys a coffin.

To the coffin that slowly passes, with
the great cloud darkening the land, with
the people's mourning and "the tolling

* A line added in this edition.

tolling bells' perpetual clang," he brings a sprig with its flower broken from the lilac bush, with its delicate blossoms and heart-shaped leaves. Nor for this coffin alone, but for all he would bring blossoms and branches and chant a song "for you, O sane and sacred Death." This, after all, was what the great star must have meant a month since—

As I saw you had something to tell as you bent
to me night after night,
As you dropped from the sky low down as if to
my side, while the other stars all look'd on,
As we wander'd together the solemn night (for
something, I know not what, kept me from
sleep).

But he is drawn by the song of the bird, though for a moment he lingers, detained by the star, his departing comrade, and by the mastering odor of the lilac. Sea winds blown from east and west, from the Atlantic and from the Pacific, shall be the perfume for the grave of the man he loves. Pictures of growing spring "with floods of the yellow gold of the gorgeous indolent sinking sun," of all the scenes of life in country or city of this varied and ample land, these shall adorn his burial house. But over all these falls the dark cloud,

And I knew death, its thought, and the sacred knowledge of death.
Then with the knowledge of death as walking one side of me,
And the thought of death close-walking the other side of me,
And I in the middle as with companions, and as holding the hands of companions,
I fled forth to the hiding receiving night, that talks not,
Down to the shores of the water, the path by the swamp in the dimness.
To the solemn shadowy cedars and ghostly pines so still.

The bird sang the "Carol of Death."

Prais'd be the fathomless universe,
For life and joy, and for objects and knowledge curious,
And for love, sweet love—but praise! praise!
For the sure-enwinding arms of cool-enfolding death.

The hearer stands wrapt by the charm and holding as if by the hand his mystic companions, while the sight that was bound in his eyes "unclosed, as to long panoramas of visions." He sees the vision of armies, of battle flags borne through the smoke, of the corpses

of all the slain soldiers of the war, and he sees that they were not as had been thought.

They themselves were fully at rest, they suffered not;
The living remained and suffer'd.

Passing from the visions and from the song, he unlooses the hold of his comrades' hands, and leaves the cedars and the lilac with heart-shaped leaves; yet each and all he keeps.

The song, the wondrous chant of the gray-brown bird,
And the tallying chant, the echo arous'd in my soul,
With the lustrous and drooping star, with the countenance full of woe,
With the holders holding my hand nearing the call of the bird,
Comrades mine, and I in the midst, and their memory ever I keep, for the dead I loved so well,
For the sweetest, wisest soul of all my days and lands—and this for his dear sake,
Lilac and star and bird twined with the chant of my soul,
There in the fragrant pines and the cedars dusk and dim.

III.

The passage from this region of pure imagination and passion to the other works of the same writer compels us to deal with his religious and political philosophy. In religion, if he is to be labelled with a name, it must be perhaps "Pantheist;" he is an exponent of "Cosmic Emotion." "I hear and behold God in every object, yet understand not God in the least." It is the contemplation of "the fathomless universe," and all its movements and rests, its organic and inorganic existences, which stirs the religious emotion in his soul. Men are inclined to cry, "What is this separate nature so unnatural? What is this earth to our affections? (unloving earth without a throb to answer ours, cold earth, the place of graves)." To answer this question is the function of the poet, to soothe "the sad incessant refrain, Wherefore, unsatisfied soul? and Whither, O mocking Life?" His answer is, "Bathe in the Spirit of the Universe, intoxicate thyself with God."

Thoughts, silent thoughts, of Time, and Space, and Death, like waters flowing, Bear me indeed as through the regions infinite,

February,

Whose air I breathe, whose ripples hear, lave
me all over,
Bathe me, O God, in thee, mounting to thee,
I and my soul to range in range of thee.
O Thou transcendent,
Nameless, the fibre and the breath,
Light of the light, shedding forth universes . . .
Thou pulse, thou motive of the stars, suns,
systems,
That, circling, move in order, safe, harmonious,
Athwart the shapeless vastnesses of space,
How should I think, how breathe a single
breath, how speak, if out of myself
I could not launch to those superior universes?

God, as he includes all, includes personality, and from God will come somehow a satisfaction of the longing of the soul. What conclusions, if any, are to be drawn from the alteration in the new edition of the poem called "Gods," I leave it to the curious to consider; but in it clearly, as elsewhere, we find anticipation of the

Lover divine, and perfect comrade,
Waiting content, invisible yet, but certain,

of whom, whether he be ideal or real,
we cannot pronounce.

About immortality he doubts, yet strongly believes. In moments of cool reflection he feels that the question of "identity beyond the grave" is the great unsolved problem. Yet his poetical optimism continually leads him to assert immortality, and that not merely the merging of our life in the vital forces of the universe, though that is sometimes his meaning, but actual personal identity of the human soul after death. We have, on the one hand, among his first utterances—

I bequeath myself to the dirt, to grow from the
grass I love;

and, on the other hand, we have later
the picture of the chamber of death,
where

The living look upon the corpse with their eye-sight,
But without eyesight lingers a different living
and looks curiously on the corpse;

and again the cry—

If maggots and rats ended us, then alarm!
for we are betrayed,
Then indeed suspicion of death.

On the whole he seems to become more definite as he proceeds, in his anticipation of "identity after the grave." As for defined creeds, it is not they which give the life;

Leaves are not more shed from the trees, or
trees from the earth, than they are shed
out of you.

God and the soul are not to be argued about;
Logic and sermons never convince;
The damp of the night strikes deeper into my
soul.

But religion is the thing above all, and he rarely fails to point the way to spiritual meanings.

His morality is almost comprised in the one word "health," health of body and health of soul, the healthy and sane man to be the ultimate standard. These are Greek ethics, and the maxim on which they seem to be based—

Whatever tastes sweet to the most perfect person, that is finally right—

is thoroughly Aristotelian. A "sane sensuality," as it is called by one of his friends, is a necessary part of the ideal man. The body is sacred as well as the soul, and to assert its sacredness is the purpose of his sometimes outrageous physiological details, which can hardly have the desired effect, but are clearly not meant, nor indeed adapted, to minister to vicious tastes; they may disgust, but they can hardly corrupt. There is indeed something in this tearing away of veils which, however justly it may offend true modesty, is to unhealthiness and pruriency as sunlight and the open air; they shrink from the exposure, and shiver at the healthy freshness; it is not an atmosphere in which they can long survive; mystery is the region in which they thrive, and here all mystery is rudely laid bare. This man's nature is itself, as healthy as the sea, which endangers not us with all the fevers deposited in it.

His judgment of actions is rather æsthetic than strictly moral, and he admires the unconscious blossoming out of good and kindly deeds more than all the moral struggles which proceed from religious introspection. He envies the careless rectitude of the movements of animals who are placid and self-contained, and do not "sweat and whine about their condition." He is sure that good deeds have their happiness in themselves and not in any external or future reward, and that bad deeds have their misery in themselves and not in any external or future punishment.

The song is to the singer, and comes back most to him ;
 The teaching is to the teacher, and comes back most to him ;
 The theft is to the thief, and comes back most to him ;
 The love is to the lover, and comes back most to him ;
 The gift is to the giver, and comes back most to him, it cannot fail.

And again of a future life—

I have dreamed that we are not to be changed so much, nor the law of us changed ;
 I have dreamed that heroes and good doers shall be under the present and past law, And that murderers, drunkards, and liars shall be under the present and past law, For I have dreamed that the law they are under now is enough.

But underlying all, so far as he himself is concerned, is a sympathy embracing all human beings, however vile, and all animals and plants, however irresponsible. It is this which leads him at times to emphasize his own sensuality, that he may make himself the equal of the most depraved, to draw them if it may be in the bonds of sympathy to himself. It is this which is the open secret of that magnetic influence which he is said to exercise over those whom he casually meets. It was this which led him to the hospitals rather than to the field of battle, and makes him recall in memory now the experiences of the "Dresser," rather than the great battles and sieges at which he was present. No study of the poet would be complete which did not include the section of his work which deals with the war and after, which indeed contains some of the most magnificent and spirit-stirring trumpet-blasts, as well as some of the most deeply-moving aspects of suffering and death ever expressed by poet. Here was a great theme, and he treated it nobly ; with all notes of patriotism and devotion to the flag is beautifully blended sympathy for the vanquished, and deep desire to relieve the sufferings of the wounded. On the whole no part of his work is more interesting than this ; it is as if he were the born poet of emancipation, tender to all suffering persons, yet with nerve strong enough to endure without fainting or shrieking the stroke of necessary surgery. Magnificent is his war cry, as in the "Song of the Banner at Daybreak," and his note of triumph, "The war is completed, the

price is paid, the title settled beyond recall ;" yet finer still is the "Vigil on the Field of Battle," the memories of the hospital tent with its long row of cots, the vision of the Mother of All gazing desperate on her dead, the reflection on those "Camps of Green" where friend and foe without hatred sleep, and need not any longer provide for outposts, nor word for the countersign, nor drummer to beat the morning drum. Other things, too, he gathered from the experiences of the war : he gathered from them more than from all else the steadfastness of his belief in democracy, in the nobleness and courage of common men. But to speak of this would belong rather to a review of the "Democratic Vistas," which is not my task ; the poetical aspects of the theme are enough. The poet then believes in the power of sympathy, but he believes also in individuality "underneath all—individuals." At least half his work is devoted to the assertion of this, and yet with this sympathy and "adhesiveness" is to go hand in hand, and he has as his watchword still the word of democracy, the word En-masse. The reconciliation is to be found in the prose more clearly than in the verse, but Whitman is not over-anxious for reconciliation ; he is large, he contains multitudes, and has room for contradictions.

Do I contradict myself ?
 Very well then, I contradict myself.

That being so, his optimism is the more comprehensible ; and it is upon a basis of optimism after all that he builds his whole religion and philosophy. He has to firm a grasp of fact to ignore the existence of evil. If he exclaims at times, "There is no evil," he adds, "or if there is, it is just as important to you as anything else." "I am not the poet of goodness only ; I am just as much the poet of evil." But he believes that evil is transient, and relative ; he holds that the drift of things is toward good ; that all is, not at once, but finally for the best. This he says, in plain prose, is the growing conviction of his life, and in verse, of the souls of men and women going forward long the roads of the universe,

They go, they go, I know that they go, but I
 know not where they go,

But I know that they go forward toward the best.

This it is which makes him so much at peace about God and about death. "No array of words can describe how much I am at peace about God and about death;" the heroic failures of this world are to him eternal successes. "Battles are lost in the same spirit in which they are won;" therefore, "Vivas to those who have failed!" And above all the cause of liberty will finally succeed.

Revolt! and still revolt! revolt!

* * * * *

When liberty goes out of a place, it is not the first to go, nor the second or third to go, It waits for all the rest to go, it is the last. When there are no more memories of heroes and martyrs, And when all life and all the souls of men and women are discharged from any part of the earth, Then only shall liberty, or the idea of liberty, be discharged from that part of the earth, And the infidel come into full possession.

Too much, perhaps, has been said of the religion and morality of the poet, and too little of the literary aspect of his works. But this it is difficult to illustrate sufficiently by quotation, and impossible to set forth without illustration. It seemed to me that suggestions of the

drift of the whole were more likely to be useful than attention to particular points. Every one will remark first the too frequent infelicity of sentiment and phrase, and then the striking directness of utterance, and the stumbling, as if by accident, on the absolutely best words in the absolutely best order, which characterizes his finest work. Whether these be truly poems, or fine imaginings only, we need not be much concerned to inquire. His own claim to be the poet of America is based on other than purely literary grounds.

Give me the pay I have served for,
Give me to sing the songs of the great Idea,
take all the rest.
I have loved the earth, sun, animals; I have
despised riches;
I have given alms to every one that asked....
I have dismissed whatever insulted my own
soul or defiled my body,
Claimed nothing to myself which I have not
carefully claimed for others on the same
terms,
Sped to the camps, and comrades found and
accepted from every state,
(Upon this breast has many a dying soldier
leaned to breathe his last).
* * * * *

Say, O mother, have I not to your thought
been faithful?
Have I not through life kept you and yours
before me?

The Nineteenth Century.

ENSILAGE.

BY PROF. J. E. THOROLD ROGERS.

ENSILAGE is the packing of green forage in air and water-tight structures. The packing should be performed as rapidly as possible, and the forage spread evenly as it is stored, so as to fill the space, especially at the sides. When the silo, that is, the pit, is full, a temporary structure may be built round its sides, and a further supply heaped on top. It is then covered with planks sawn so as to nearly fit the length of the pit, and the whole heavily weighted. By these means the forage is pressed into a close mass, fermentation is early arrested, and the forage is kept sound and serviceable for an indefinite period. Some fermentation does take place, but it is said that in a well-constructed silo this fermentation is useful, if not necessary. Agricultural chemists allege that

the fermentation is that which naturally takes place in the first stomach of ruminant animals, and that therefore the processes of digestion and assimilation are aided by ensilage. The term ensilage is used to denote the process of storing and the product when stored.

The practice of ensilage is very ancient. It is plain that it was known five centuries before our era. The origin of the custom was probable insecurity. Husbandmen dug water-tight cavities under their houses and barns in order to store their produce and keep it from marauders, heaping earth or stones over the store, and so excluding the air. In course of time, they found that these hoards of grain were preserved in a sound state for a very long period. Corn, we are told, was laid up in ear, and kept for

a century. The only condition was to protect the storage from air and moisture. The practice was known and adopted from Britain and Germany on the north, to Africa on the south, Cappadocia and the Caucasus on the east. It is mentioned by the poet Euripides, and described by nearly all the Latin writers on agriculture.

It seems that M. Goffart, of Sologne, in France, published, in 1877, a work on ensilage. This was translated into English and published at New York in 1879. The experience of the French agriculturist was rapidly adopted in the New England States, in New York and New Jersey, even in some of the other and more distant parts of the American Union and in Canada. It is now becoming general, and for sufficient reasons. Before the translation and publication of M. Goffart's book, experiments of a more or less successful character had been made, notably by Mr. Mills, of Pompton, New Jersey, who is supposed to have been the first to introduce the practice of ensilage in America. M. Goffart began the practice of ensilage in 1852, and his work is therefore the record of an experience extending over a quarter of a century.

There was good reason for adopting any system which should save forage in the eastern states of America, and give stalled cattle a food which should be equally good all the year round, and be unchanged—or I presume change of food always involves some distaste on the part of cattle, and some loss, even if the new food may be as nutritive as that which it displaces and may cost no more. The sudden adoption and rapid extension of ensilage in the east of America are easily accounted for, by reasons of climate, soil, and competition.

Climate.—The heat of the summer and the cold of winter are excessive in the States. The rainfall is great, much greater than, on the average, in England, but falls in large quantities at particular periods, and is alternated with bright and dry weather. The cold of the winter is extreme, constantly falling below zero in a latitude which is the same as that of central or even southern Spain. The heat of the summer ripens Indian corn, the grape, and even a

number of semi-tropical products. The cold of the winter kills furze and ivy. It makes a crop of roots precarious and their storage difficult. It makes the housing of cattle in winter necessary. Again, in the heat of the summer, it is requisite to cool a dairy by means of an ice-house in contiguity with it, and in the winter to keep milk from freezing by artificial warmth. It is therefore in the highest degree expedient to discover some means by which cattle, as well as man, can be sheltered from such excessive alternations of heat and cold. Hence there is, owing to the variations in the climate, a stronger motive for the use of ensilage in the United States than there would be in England. Beside, during summer, insect plagues are far more vexatious in America than they are in England, though it does not appear that sheep suffer so much from fluke as they do with us, perhaps because rabbits are almost unknown in the States, at least as a generally diffused animal.

Soil.—The soil of the northeastern States is generally, almost universally, sterile. For the most part it consists, where it is at all cultivable, of a coarse gravel, sprinkled with boulders. Some of these boulders are of enormous size—frequently they almost cover the ground. In much of the country the soil is so rocky that it is, and always will be, natural forest, *i. e.* a tract of rather low, close-growing trees. In what is cultivable, the soil, with rare exceptions, is only redeemed from barrenness by careful cultivation and manure; and in some poorer farms, where the owner is needy and unenterprising, the soil is almost exhausted. A New England farmer of fifty acres is only a degree removed from a pauper. Laborers have constantly purchased farms with their savings, for tenant-farming is almost unknown, and find themselves worse off than when they worked for wages. To such farmers, ensilage, by greatly increasing the feeding powers of forage, is a boon of the most valued kind, and as it is possible at very small cost to create a silo in a hill side, there is no doubt that the system which at first was necessarily the experiment of opulent landowners will become the universal expedient of such New England farmers as wish to better their condition. To add to the natural

inconveniences of his position, the New England farmer is plundered in every detail of his expenditure by the nefarious system of Protection in the States, of which he is the principal and constant victim. Machines, in a country where agricultural labor is costly, are unnaturally enhanced in price, and many important chemicals are loaded with heavy *ad valorem* duties. The peasant pays double the price for his clothing that he would pay under a fairer system, and constantly contributes twice as much in indirect duties on sugar as he does on his direct taxation.

Competition.—But these are not his only embarrassments. The American farmer in the east is subjected, as Western Europe is, to the competition of that almost illimitable district between the Alleghanies and the Rocky Mountains where the natural fertility of the soil is very high. He cannot protect himself against this competition. The cost of transit is comparatively low, for there is keen rivalry between the various railway systems which traverse the prairies, and all compete against each other for freight. Low as the freights are, there is great discontent at their amount, and there is growing up a party in the Union, under the name of the anti-monopolists, whose organization is directed against railroad rates. The east had ceased to supply wheat to the great cities on the coast, and was rapidly failing to supply meat and dairy produce. If the land therefore was to be worth anything at all, it was necessary to find some new method of agriculture. If prices were not to be constantly enhanced, it was expedient for the consumer, as well as the producer, to welcome anything which would give a new fertility to the soil, and a nearer market to the public. This is what the advocates of ensilage assert to have been effected by its introduction. They call it "a new dispensation," "the greatest thing in the world," as "destined to work a revolution in the present system of dairy farming," and "to restore the agriculture of New England to its former importance and profitableness." Mr. Bailey, after making a calculation as to the receipts of a New England farmer, and concluding that under the old system

the farmer "works for nothing except house-rent, fuel, and vegetables, and pays ten dollars a year for the privilege of doing so, and does not wonder that the girls declare they won't marry a farmer," asserts that the "system of ensilage reduces the comparative value of good timothy hay to four dollars (16s.) a ton," and that it will bring about, upon its general introduction and adoption, "an agricultural millennium—almost."

Much of this writing—and more might be quoted—is doubtlessly extravagant. But the advocates of the new system have had to encounter considerable criticism of that dogmatic kind which scientific people are apt to employ against anything which they do not find out for themselves. "It is a curious fact" (complains one of the farmers' journals), "that while many scientific gentlemen, numerous professors in agricultural colleges, and eminent chemists, denounce this system of ensilage as unworthy the time and attention of the agriculturist, yet hundreds of practical farmers have, notwithstanding, proceeded to build silos, store fodder crops, and give ensilage to their livestock with almost unvarying success. Surely the best theories are those which have some foundation in actual practice. We predict thousands of new silos next season where hundreds have heretofore been the rule." The American farmer has had to encounter not only the prejudice of ignorance, but the bigotry of science—two of the most persistent enemies of practical progress.

It will be seen that the New England farmer had every motive to adopt any agricultural expedient which would restore efficiency to the land which formed his holding. But on the other hand his means were so scanty, and the margin for experiment was so narrow, that he could ill afford failure. Fortunately there were persons who could afford to make the trial, and so certify to the merits of the new method, while they guarded him against mistakes. Those capitalists who owned large hotels, were naturally disposed to try the experiment. As is well known, hotel-keeping is a special calling in the United States, and a prudently-managed hotel is one of the most lucrative and regular kinds

of business in which men can engage large capitals. But it is the business of all others which needs an unvarying reputation and incessant attention to economies. If an American hotel-keeper feeds his guests ill, he soon finds that his receipts shrink, his rooms empty, and his returns on a large capital tending to a minus quantity. Unless he can buy in the best market, his profits will be small, however numerous and regular his customers are. If he can supply himself from his own estate with some of the most important articles of consumption, he will carry on his calling to the greatest advantage. Now one of the chief features in profitable business throughout the United States, perhaps in the Old World, is the elimination of the middle man from great business undertakings. My friend, Mr. Havemeyer, whose estate in New Jersey has silos in (at present) their most perfect form, is a sugar refiner, whose extensive business—perhaps the most extensive in the world—is successful against all rivals, not only because of the manufacturing capacity of its principal, but because he supplies himself, as far as possibly can be done, and at first hand, with all that is necessary for his manufacture.

Mr. Wolcott, the owner of Vendome Hotel, Boston, who is, I believe, a retired soldier of the great civil war, supplies his huge and excellent hotel with produce from his farm. The material for his silos was the produce of thirty-four acres, half corn (maize), half rye. The two crops were procured in one year from the same land, the rye being cut in May. The amount put into silos was over 750 tons, or nearly twenty-three tons to the acre, *i.e.*, a million and a half pounds weight of preserved forage (the American ton is 2000 lbs.), or food for 100 milch cows at the rate of fifty pounds a day for three hundred days. The summer of 1881, from which this account is taken, was exceptionally dry, and perhaps had there been more rain, the produce of the corn might have been a third more per acre.

The cost of cultivation, manure, labor, and storage, was—Mr. Wolcott gave me a carefully drawn balance sheet of his operations—a little over 380*l.* in English money at five dollars the pound sterling. With the produce, eighty cows

were fed. "With this food, and a ration of two quarts of grain daily, cows will give ten per cent more milk than with the best English hay and six quarts of grain daily. The cost of feeding is reduced more than one half. I am of opinion that one acre of land in ensilage will keep one cow for twenty-four months, and I doubt if any farmer in New England can show an acre of land, which will, by the old system of farming, support a cow half the length of that time." The produce of Mr. Wolcott's farm is consumed at his hotel, and I can testify to the quality of the milk and butter supplied from it. I am told that both are equally good in the winter, and the produce even more plentiful, as there is no loss to the animal from the heat and the worry of insects. Testimony similar to that of Mr. Wolcott—whose statements I have quoted because I conversed with him, received his figures, and could put to the test the value of his method—was made by those who were present at the ensilage congress at New York in January last.

The attention which I gave to the new system of storage was not accidental. In the present year (June) a Parliamentary Paper was distributed among the members of both Houses, containing reports from divers Secretaries of Legation, and among them one from Mr. Drummond for the United States. This report contained a description of two ensilage farms in New Jersey, one belonging to Mr. Havemeyer, at Mahwah, the other to Mr. Mills, of Pompton. I determined to see both, and had no difficulty, as Mr. Havemeyer is intimate with my old and valued friend, Mr. David Wells, of Norwich, Conn., the shrewdest and most intelligent economist, and, I need not add, free-trader in the United States. Mr. Mills resides about a dozen miles from Mr. Havemeyer, and we drove on an afternoon to Pompton during my visit to the former gentleman.

Mr. Mills appears to have been the first to introduce ensilage into the States, and to have suggested the heavy weighting of the fodder in the silo. His farm and silos are those which are described at the greatest length by Mr. Drummond. His experiments were made in 1876, as

an attempt to save a crop of unripe corn, sown from seed which could not, as he found, ripen in the Northern States. He made several rough silos in a gravel bank, put his corn in whole, covered it with straw and planks, and then heaped earth over it. When the frost broke up in the following spring, he opened his pits, found the fodder in good preservation, got it out, and found his horses liked it. He bought cows, and found that they ate it greedily and thrrove on it. Since this date he has regularly carried on the practice. He has now two pits, holding together six hundred tons, unless there is some mistake in the account. This is the produce of thirteen acres of land—a prodigious yield, as it is over forty-six tons per acre. It is said to have cost only 100*l.* to sow, till, reap, and store, and we are told that one pit up to January 25th, 1882, without being exhausted, maintained one hundred and twenty horned cattle and twelve horses for three months. Mr. Mills reckoned that the residue, with the produce of the other pit, would keep the stock for seven months more. The store was, I presume, exhausted early in October, when I saw it. Mr. Mills now weights his forage with boxes of dry earth. He does not trample or shred it, and told me that he thought the former bruised the forage, the latter increased the difficulty of pressing air out of, and deteriorated the quality of, the substance. My own impression of the growing crop of maize which I saw on Mr. Mills's farm was that it would average considerably less than ten tons to the acre. The land of Mr. Mills's farm, though tolerably level and free from boulders, was very poor—little better than a drift shingle.

Mr. Havemeyer's estate is altogether about six hundred acres. Here I may say that American estates, even when the property of wealthy persons, are rarely large. Cultivation by any but the owner is rare, though in some parts of the State of New York tenants are to be found, though on long terms and with liberal covenants. The area of the Union is so vast that a huge estate brings no glory to its owner—is indeed evidence that the district in which the property lies is backward.

There is no means by which the owner can turn it to account but by selling it, and though in the American Union land is rapidly occupied, it is slowly settled. The estate at Mahwah is pretty equally divided between a rocky and wooded mountain on one side of the Ramapo river—a stream fully as broad as the Tay at Scone, but containing a far larger quantity of water—and a flat, rather low valley on the other side. The soil as usual is a coarse shingle, the detritus of the trap rocks which constitute the greater part of the Eastern States. It owes its fertility entirely, or almost entirely, to cultivation. Professor Sumner, of Yale, told me that he had never in all his experience found a piece of land in New England, New York, or New Jersey, which bore a cent of Ricardian rent. This is, I think, an exaggeration, but it is nearly a reality over the greater part of that huge district. I should think that Mr. Havemeyer's farm is naturally poorer than that of Mr. Mills. The soil is so porous that at a considerable distance from the river, shallow pits sunk to the level of the stream, are soon filled with water. I saw the river in flood, after violent storms of rain, about seven inches of which fell in less than three days. It was perfectly clear, and therefore flood does little toward warping the land and deepening the soil, as would be the case if the river passed over rocks that were easily abraded.

Of the three hundred cultivable acres, about one third was reserved for hay, one third for grain and roots, one third for ensilage crops. In the year 1882, ninety-seven acres were devoted, as I was told, to the last of these objects, and the crops were principally rye, cut early, clover, cow-peas, and corn. Some of the corn, about ten acres, I should guess, was uncut on October 2d, the last day of my residence at Mahwah. The earlier cut had been put into silos, and was being fed. The cattle were eating ensilage of maize in rations of about twenty three pounds twice a day, with a quart of ground oats to each ration. The ration for the evening meal was spread out in the morning. It had a slight sour and a slight vinous smell, the former very like that of milk when just beginning to

turn. The cows ate it greedily, and after their meal were turned out into a yard running along one length of the cow-house. The calves were in another range of buildings, the bulls in a third, the pigs in a fourth, the poultry in a fifth, the sheep, when housed—for while I was there they were grazing in an orchard—in a sixth. All these animals thrive on ensilage. Beside these buildings there was a very large stable. The horses were not here fed on silo forage, the hay and part of the oats grown on the farm being mainly destined for them.

The farm maintains about 150 milch cows, bulls, and heifers, beside a number of calves. I was promised an account of the stock, and a balance sheet, but as it did not reach me before I left, it has I fear gone astray. I saw about fifty sheep and as many swine. There were no poultry to speak of. The cows were pedigree Jerseys, and had been imported or purchased at high prices. I was told by my friend that both sides of his balance sheet—that of his stock and that of his dairy produce—were quite satisfactory; that he got good profit from sales of young stock and from his butter. I can quite believe the latter, for, on ensilage forage and a little ground oats most of the cows had yielded through the winter more than their own weight of milk monthly.

The cows are housed in a long and lofty T-shaped house, the stem of the figure being occupied by the animals, the two extremities by the silos and the dairy buildings, the latter comprising ice and milk rooms, the principal dairyman's house, and the engine-house. The north wing, 93 feet long, and 40 feet wide, is entirely occupied by the silos, except that the nearer end to the main barn, and on a level with the mouth of the silos, is used to store cutting machines and similar tools. The frame which incloses the silos is timber, and resembles the rest of the building.

The silos are built entirely above ground. The soil is such that when the river is high three feet below the surface would come to water. The foundation is stone, and concrete walls $\frac{1}{2}$ feet thick, are built on it to the height of 25 feet. Two are 59 feet long

and 14 feet wide, two others 35 feet by 12 feet. The longer are now divided into six compartments, the shorter into four, by interior wooden walls. The average capacity is 100 tons of forage. They may each be easily filled in a day, the forage being chopped on a platform at the east of the barn, and conveyed into the pits by carriers through doors in the space above the silos. At first one of the undivided silos only was stored, and the forage cut from the side as hay is cut. Now that they are divided, the weights and boards are lifted and deposited in an empty pit, and the forage taken out from the top.

When the silos are filled as full as possible, and piled even above the mouth inside a temporary hoarding, and the surface made level, inch-thick planks are laid on the surface and the whole weighted. Some persons use earth, others heavy stones. Mr. Havemeyer employs barrels filled with sand, each weighing about 500 lbs. Three tiers of these barrels are laid on the planks, and the mass within ten days sinks to about two-thirds its original dimensions. Some fermentation takes place, but this is slight, beneficial rather than injurious, and is speedily arrested. The silo is not opened for use till after three months, but it may be kept closed without any alteration in its quality for a year. When it is opened the barrels are raised by a clip and pulleys, and lowered into an empty silo, so as to be ready for use whenever they are needed.

Persons who speak with authority in England, inform the public, and those who take their advice, that American farmers pack their forage with a large quantity of chopped straw. They do nothing of the kind. They also state that ensilage is practised only on green maize and sorghum, the latter a grass from which a coarse sugar, much consumed by the negroes, is made. This is also incorrect. Corn is undoubtedly the commonest and most general material for ensilage. But I find the following kinds of green forage also used, the different kinds of grain crops being cut when the stalk is still green and the grain immature: Oats, rye, meadow grass, aftermath or rowen, Hungarian grass, clover, peas, millet, and in the south, dhurra. Sorghum is only occa-

sionally used, but I have found it grown as far north as Canada. Rye, being an early crop, would be a more general favorite, but some of the farmers are afraid of ergot.

Ensilage has not been practised for more than four years in America—hardly at all, in fact, till after M. Goffart's book was translated and published in 1879. But it has excited so much attention that in June of the present year Mr. Loring, the United States Commissioner of Agriculture, issued a circular from his department in Washington to a number of persons who were known to practise it. The circular contained twenty-six questions of a practical kind, to which answers were invited. Over ninety answers were received, and it may be noted that among these are not to be found the names of Messrs. Mills, Havemeyer, Wolcott, Abram Hewitt, Robinson, Remington, and others, who are convinced of the merits of the system, and active in carrying it out. The evidence given by those who had tried the new system was conclusive as to its importance and value not only in New England, but to the whole of the agricultural community. Most persons estimate it as enabling the farmer to feed four cattle at the cost of two under the older system.

It is, of course, a question whether ensilage can profitably be adopted in England. On the one hand we have root crops in abundance which America has not, and heavier crops of hay. Again, we cannot calculate with security on a double crop annually; say rye and green corn, or rye and vetches with

grass, as the Americans can, although in the greater part of England maize can be made a green crop. But, on the other hand, the silo renders the farmer indifferent to weather. He can store grass, clover, and similar crops, if his silo be properly made, without risk that they will be spoiled. Thousands of acres of hay are annually spoiled by wet in England. They would be saved in silos. A still larger area of aftermath is lost, and lost to the injury of the land, which could be similarly saved. A vast amount of corn in Scotland, lost annually to the husbandman by the lateness of season and wetness of weather, could be saved. Where there is difficulty in getting at turnips under deep snow, a silo would help the farmer over the interval. It cannot, I think, be doubted that it would be advantageously employed for the green crops of heavy clays, and for produce where land is foul, for Americans expressly state that it sweetens a forage which, if turned into hay, would be unsalable, owing to the presence of weeds. But I do not pretend to advise on such a subject. It is to be hoped that experiments will be tried in England, and those prudently, under the best conditions and most careful precautions. I hope I am not too sanguine when I express it, as my firm conviction, that ensilage will do more to revive or restore British agriculture, multiply home produce, and give an energetic and permanent stimulus to the most important of all trades—the home trade, than anything which I have seen or heard of, and this by proof of practical experience.—*Macmillan's Magazine*.

JOHN HARRISON, THE CHRONOMETER MAKER.

BY SAMUEL SMILES.

At the Royal Observatory, Greenwich, one of the most remarkable instruments is to be seen—the first chronometer, the parent of a numerous progeny of chronometers, used on board of every sea-going ship, to the advantage of navigation, of commerce, as well as of science. As far back as the reign of Queen Anne, in the year 1714, the English Government offered the large prize of 20,000l. to the person

who should find the method of discovering the longitude at sea, within certain specified limits. The reward was offered to the world, to inventors and scientific men of all countries, without any restriction of nation, or race, or language. To the surprise of every one—it was thought remarkable, and it was remarkable—the prize was won by a man who had been brought up as a village carpenter, of no school, or college,

or university. But the truth is that the great mechanic, like the poet, is born, not made ; and John Harrison, the winner of the famous prize, was a born mechanician. He did not, however, accomplish his object without the exercise of the greatest skill, patience, and perseverance. Indeed, his life, so far as we can ascertain the facts of it, is one of the finest examples of difficulties overcome, and of undaunted perseverance eventually crowned by success, in the whole range of biography.

No complete narrative of Harrison's career was ever written. Only a short notice of him appears in the "Biographica Britannica," published in 1766, during his lifetime—the facts of which were obtained from himself. A few notices of him appear in the "Annual Register," also published during his lifetime. But no Life of him has since appeared. Had he won battles by land and sea, we should have had biographies of him without end. But he pursued a more peaceful and industrious course. His discovery conferred an incalculable advantage on navigation, and enabled innumerable lives to be saved at sea ; it also added to the domains of science by its more exact measurement of time. But his memory has been allowed to pass silently away, without any record being left for the benefit and advantage of those who have succeeded him. The following memoir includes nearly all that is known of the life and labors of John Harrison.

He was born at Foulby, in the parish of Wragby, near Pontefract, Yorkshire, in May 1693. His father, Henry Harrison, was carpenter and joiner to Sir Rowland Wynne, owner of the Nostel Priory estate. The present house was built by the baronet on the site of the ancient priory. Henry Harrison was a sort of retainer of the family, and he long continued in their service.

Little is known of the boy's education. It was certainly of a very inferior description. Like George Stephenson, Harrison had always a great difficulty in making himself understood, either by speech or writing. Indeed, every board-school boy receives a better education now than John Harrison did a hundred and eighty years ago. But education

does not altogether come by reading and writing. The boy was possessed of vigorous natural abilities. He was especially attracted by every machine that moved upon wheels. The boy was thus "father to the man." When six years old, and lying sick of small-pox, a going watch was placed upon his pillow, which afforded him infinite delight.

When seven years old he was taken by his father to Barrow, near Barton-on-Humber, where Sir Rowland Wynne had another residence and estate. Henry Harrison was still acting as the baronet's carpenter and joiner. In course of time young Harrison joined his father in the workshop, and proved of great use to him. His opportunities for acquiring knowledge were still very few, but he applied his powers of observation and his workmanship to the things that were nearest him. He worked in wood, and to wood he first devoted his attention.

He was still fond of machines going upon wheels. He had enjoyed the sight of the big watch going upon brass wheels when he was a boy ; but, now that he was a workman in wood, he proposed to make a time-keeper with wheels of that material. After many difficulties—and nothing can be accomplished without them—he succeeded in making a wooden clock, with wheels of wood. This, however, was only a beginning. He proceeded to make better clocks ; and then he found it necessary to introduce metal, as being more lasting. He made pivots of brass, which move more conveniently in sockets of wood, with the use of oil. He also caused the teeth of his wheels to run against cylindrical rollers of wood, fixed by brass pins, at a proper distance from the axis of the pinions ; and thus to a considerable extent he removed the inconveniences of friction.

In the mean time Harrison eagerly improved every incident from which he might derive further information. There was a clergyman who came every Sunday to the village to officiate in the neighborhood ; and having heard of the sedulous application of the young carpenter, he lent a manuscript copy of Professor Saunderson's discoveries. The blind professor had prepared several lectures on natural philosophy for

the use of his students, but they were never intended for publication. Young Harrison now proceeded to copy them out, together with the diagrams. Sometimes, indeed, he spent the greater part of the night in writing or drawing.

As part of his business, he undertook to survey land, and to repair clocks and watches, beside carrying on his trade of a carpenter. He soon obtained a considerable knowledge of what had been done in clocks and watches, and was able to do not only what the best professional workers had done, but to strike out entirely new light in the clock- and watch-making business. He found out a method of diminishing friction by adding a joint to the pallets of the pendulum, whereby they were made to work in the nature of rollers of a large radius, without any sliding, as usual, upon the teeth of the wheel. He constructed a clock on the recoil principle, which went perfectly and never lost a minute within fourteen years. Sir Edmund B. Denison says that he invented this method in order to save himself the trouble of going so frequently to oil the escapement of a turret clock, of which he had charge; though there were other influences at work beside this.

But his most important invention, at this early period of his life, was his compensation pendulum. Every one knows that metals expand with heat and contract by cold. The pendulum of the clock therefore expanded in summer and contracted in winter, thereby interfering with the regular going of the clock. Huygens had by his cylindrical checks removed the great irregularity arising from the unequal lengths of the oscillations; but the pendulum was affected by the tossing of a ship at sea, and was also subject to a variation in weight, depending on the parallel of latitude. Graham, the well-known clockmaker, invented the mercurial compensation pendulum, consisting of a glass or iron jar filled with quicksilver and fixed to the end of the pendulum rod. When the rod was lengthened by heat, the quicksilver and the jar which contained it were simultaneously expanded and elevated, and the centre of oscillation was thus continued at the same distance from the point of suspension.

But the difficulty, to a certain extent, remained unconquered until Harrison took the matter in hand. He observed that all rods of metal do not alter their lengths equally by heat, or, on the contrary, become shorter by cold, but some more sensibly than others. After innumerable experiments Harrison at length composed a frame somewhat resembling a gridiron, in which the alternate bars were of steel and of brass, and so arranged that those which expanded the most were counteracted by those which expanded the least. By this means the pendulum contained the power of equalizing its own action, and the centre of oscillation continued at the same absolute distance from the point of suspension through all the variations of heat and cold during the year.

Thus by the year 1726, when he was only twenty-three years old, Harrison had furnished himself with two compensation clocks, in which all the irregularities to which these machines were subject were either removed or so happily balanced, one metal against the other, that the two clocks kept time together in different parts of his house, without the variation of more than a single second in the month. One of them, indeed, which he kept by him for his own use, and constantly compared with a fixed star, did not vary so much as one minute during the ten years that he continued in the country after finishing the machine.

Living, as he did, not far from the sea, Harrison next endeavored to arrange his timekeeper for purposes of navigation. He tried his clock in a vessel belonging to Barton-on Humber; but his compensating pendulum could there be of comparatively little use; for it was liable to be tossed hither or thither by the sudden motions of the ship. He found it necessary, therefore, to mount a chronometer, or portable timekeeper, which might be taken from place to place, and subjected to the violent and irregular motion of a ship at sea, without affecting its rate of going. It was evident to him that the first mover must be changed from a weight and pendulum to a spring wound up and a compensating balance.

He now applied his genius in this direction. After pondering over the

subject in his mind, he proceeded to London in 1728, and exhibited his drawings to Dr. Halley, then Astronomer Royal. The Doctor referred him to Mr. George Graham, the distinguished horologer, inventor of the dead-beat escapement. After examining the drawings and holding some converse with Harrison, Graham perceived him to be a man of uncommon merit and gave him every encouragement. He recommended him, however, to make his machine before again applying to the Board of Longitude. He accordingly returned home to Barrow to complete his task, and many years elapsed before he again appeared in London to present his chronometer.

The remarkable success which Harrison had achieved in his compensating pendulum could not but urge him on to further experiments. He was no doubt to a certain extent influenced by the reward of 20,000*l.* which the English Government had offered many years before for an instrument that should enable the longitude to be more accurately determined by navigators at sea than was then possible; and it was with the object of obtaining pecuniary assistance to assist him in completing his chronometer that Harrison made his first visit to London to exhibit his drawings in 1728.

The Act of Parliament offering this superb reward was passed in 1714, in the twelfth year of the reign of Queen Anne. It was right that England, then rapidly advancing to the first position as a commercial nation, should make every effort to render navigation less hazardous. At that time the ship, when fairly at sea, out of sight of land, and battling with the winds and tides, was in a measure lost. No method existed for accurately ascertaining the longitude. The ship might be out of its course for one or two hundred miles, for anything that the navigator knew; and only the wreck of his ship on some unknown coast told of the mistake which he had made in his reckoning.

It may here be mentioned that it was comparatively easy to determine the latitude of a ship at sea every day when the sun was visible. The latitude—that is, the distance of any spot from the equator and the pole—might be found by a

simple observation with the sextant. The altitude of the sun at noon is found, and by a short calculation the position of the ship may be ascertained.

The sextant, which is the instrument universally used at sea, was gradually evolved from similar instruments used from the earliest times. The object of these instruments has always been to find the angular distance between two bodies—that is to say, the angle of two straight lines which are drawn from those bodies to meet in the observer's eye. The simplest instrument of this kind may be well represented by a pair of compasses. If the hinge is held to the eye, one leg pointed to the distant horizon, and the other leg pointed to the sun, the two legs will be separated by a certain angle, which will be the angular distance of the sun from the horizon at the moment of observation.

Until the end of the seventeenth century the instrument used was of this simple kind. It was generally a large quadrant, with one or two bars moving on a hinge, to all intents and purposes a huge pair of compasses. The direction of the sight was fixed by the use of a slit and a pointer, much as in the ordinary rifle. This instrument was vastly improved by the use of a telescope, which not only allowed fainter objects to be seen, but especially enabled the sight to be accurately directed to the object observed.

The instruments of the pre-telescopic age reached their glory in the hands of Tycho Brahe. He used magnificent instruments of the simple "pair of compasses" kind—circles, quadrants, and sextants. These were for the most part ponderous fixed instruments, and of little or no use for the purposes of navigation. But Tycho Brahe's sextant proved the forerunner of the modern instrument. The general structure is the same; but the vast improvement of the modern sextant is due, firstly, to the use of the reflecting mirror, and, secondly, to the use of the telescope for accurate sighting. These improvements were due to many scientific men—to William Gascoigne, who first used the telescope, about 1640; to Robert Hooke, who, in 1660, proposed to apply it to the quadrant; to Sir Isaac Newton, who de-

signed a reflecting quadrant ;* and to John Hadley, who introduced it. The modern sextant is merely a modification of Newton's or Hadley's quadrant, and its present construction seems to be perfect.

It therefore became possible accurately to determine the position of a ship at sea as regarded its latitude. But it was quite different as regarded the longitude—that is, the distance of any place from a given meridian, eastward or westward. In the case of longitude there is no fixed spot to which reference can be made. The rotation of the earth makes the existence of such a spot impossible. The question of longitude is purely a question of TIME. The circuit of the globe, east and west, is simply represented by twenty-four hours. Each place has its own time. It is very easy to determine the local time at any spot by observations made at that spot. But, as time is always changing, the knowledge of the local time gives no idea of the position of a moving object—say, of a ship at sea. But if, in any locality, we know the local time, and also the local time of some other locality at that moment—say, of the Observatory at Greenwich—we can, by comparing the two local times, determine the difference of local times, or, what is the same thing, the difference of longitude between the two places. It was necessary therefore for the navigator to be in possession of a first-rate watch or chronometer, to enable him to determine accurately the position of his ship at sea, as respects the longitude.

Before the middle of the eighteenth century good watches were comparatively unknown. The navigator mainly relied upon his Dead Reckoning, without any observation of the heavenly bodies. He depended upon the accuracy of the course which he had steered by the compass, and the mensuration of the ship's velocity by an instrument called the log, as well as by combining and rectifying all the allowances for drift, lee-way, and so on, according to the trim of the ship ; but all of these

were liable to much uncertainty, especially when the sea was in a boisterous condition. There was another and independent course which might have been adopted—that is, by observation of the moon, which is constantly moving among the stars from west to east. But until the middle of the eighteenth century good lunar tables were as much unknown as good watches.

Hence a method of ascertaining the longitude, with the same degree of accuracy which is attainable in respect of latitude, had for ages been the grand desideratum for men " who go down to the sea in ships." Mr. Macpherson, in his important work entitled "The Annals of Commerce," observes, " Since the year 1714, when Parliament offered a reward of 20,000*l.* for the best method of ascertaining the longitude at sea, many schemes have been devised, but all to little or no purpose, as going generally upon wrong principles, till that heaven-taught artist Mr. John Harrison arose ;" and by him, as Mr. Macpherson goes on to say, the difficulty was conquered, having devoted to it "the assiduous studies of a long life."

The preamble of the Act of Parliament in question runs as follows : " Whereas it is well known by all that are acquainted with the art of navigation that nothing is so much wanted and desired at sea as the discovery of the longitude, for the safety and quickness of voyages, the preservation of ships and the lives of men," and so on. The Act proceeds to constitute certain persons commissioners for the discovery of the longitude, with power to receive and experiment upon proposals for that purpose, and to grant sums of money not exceeding 2000*l.* to aid in such experiments. The clause of the Act, by which rewards are offered to such inventors or discoverers as shall succeed in enabling the longitude to be ascertained within certain limits, is as follows :

" And for a due and sufficient encouragement to any such person or persons as shall discover a proper method for finding the said longitude, be it enacted by the authority aforesaid that the first author or authors, discoverer or discoverers, of any such method, his or their executors, administrators, or assigns, shall be entitled to, and shall

* Sir Isaac Newton gave his design to Edmund Halley, then Astronomer Royal. Halley laid it on one side, and it was found among his papers after his death in 1742, and twenty-five years after the death of Newton.

have such reward as is hereinafter mentioned; that is to say, to a reward or sum of 10,000l. if it determines the said longitude to one degree of a great circle, or sixty geographical miles; to 15,000l. if it determines the same to two thirds of that distance; and to 20,000l. if it determines the same to one half of the same distance; and that one moiety or half part of such reward or sum shall be due and paid when the said commissioners, or the major part of them, do agree that any such method extends to the security of ships within eighty geographical miles of the shores which are the places of the greatest danger, and the other moiety or half part when a ship, by the appointment of the said commissioners, or the major part of them, shall thereby actually sail over the ocean from Great Britain to any such port in the West Indies as these commissioners, or the major part of them, shall choose or nominate for the experiment, without losing their longitude beyond the limits before mentioned."

It will, in these days, be scarcely believed that little more than a hundred and fifty years ago a prize of not less than ten thousand pounds should have been offered for a method of determining the longitude within *sixty miles*, and that double the amount should have been offered for a method of determining it within *thirty miles!* The amount of these rewards is sufficient proof of the fearful necessity for improvement which then existed in the methods of navigation. And yet, from the date of the passing of the Act in 1714 until the year 1736, when Harrison finished his first timepiece, nothing had been done toward ascertaining the longitude more accurately, even within the wide limits specified by the Act of Parliament. Although several schemes had been projected, none of them had proved successful, and the offered rewards therefore still remained unclaimed.

To return to Harrison. After reaching his home at Barrow, after his visit to London in 1728, he began his experiments for the construction of a marine chronometer. The task was one of no small difficulty. It was necessary to provide against irregularities arising from the motion of a ship at sea, and to

obviate the effect of alternations of temperature in the machine itself, as well as in the oil with which it was lubricated. A thousand obstacles presented themselves, but they were not enough to deter Harrison from grappling with the work he had set himself to perform.

Every one knows the beautiful machinery of a timepiece, and the perfect tools required to produce such a machine. Some of these Harrison procured in London, but the greater number he produced for himself. Many entirely new adaptations were required for his chronometer. Wood could no longer be employed, and he had therefore to teach himself to work accurately and minutely in brass and other metals. Having been unable to obtain any assistance from the Board of Longitude, he was under the necessity, while carrying forward his experiments, of maintaining himself by working at his trade of a carpenter and joiner. This will account for the very long period that elapsed before he could bring his chronometer to such a state that it might be tried with any approach to certainty in its operations.

Harrison, beside his intentness and earnestness in respect of the great work of his life, was a cheerful and hopeful man. He had a fine taste for music, and organized and led the choir of the village church, which attained a high degree of perfection. He invented a curious monochord, which was not less accurate than his clocks in the mensuration of time. His ear was distressed by the ringing of bells out of tune, and he set himself to remedy them. At the parish church of Hull, for instance, the bells were harsh and disagreeable, and by the authority of the vicar and church wardens he was allowed to put them into a state of exact tune, so that they proved entirely melodious.

But the great work of his life was his marine chronometer. He found it necessary, in the first place, to alter the first mover of his clock to a spring wound up, so that the regularity of the motion might be derived from the vibrations of balances, instead of those of a pendulum in a standing clock. Mr. Folkes, President of the Royal Society, when presenting the gold medal to Mr. Harrison in 1749, thus describes the ar-

rangement of his new machine. The details were obtained from Harrison himself, who was present. He made use of two balances situated in the same plane, but vibrating in contrary directions, so that the one of these being either way assisted by the tossing of the ship, the other might constantly be just so much impeded by it at the same time. As the equality of the times of the vibrations of the balance of a pocket-watch is in a great measure owing to the spiral spring that lies under it, so the same was here performed by the like elasticity of four cylindrical springs or worms, applied near the upper and lower extremities of the two balances above described.

Then came in the question of compensation. Harrison's experience with the compensation pendulum of his clock now proved of service to him. He proceeded to introduce a similar expedient into his proposed chronometer. As is well known to those who are acquainted with the nature of springs moved by balances, the stronger those springs are the quicker the vibrations of the balances are performed, and *vice versa*; so it follows that those springs, when braced by cold, or when relaxed by heat, must of necessity cause the timekeeper to go either faster or slower, unless some method could be found to remedy the inconvenience.

The method adopted by Harrison was his compensation balance, doubtless the backbone of his invention. His "thermometer kirb," he himself says, "is composed of two thin plates of brass and steel, riveted together in several places, which, by the greater expansion of brass than steel by heat and contraction by cold, becomes convex on the brass side in hot weather and convex on the steel side in cold weather; whence, one end being fixed, the other end obtains a motion corresponding with the changes of heat and cold, and the two pins at the end, between which the balance spring passes, and which it alternately touches as the spring bends and unbends itself, will shorten or lengthen the spring, as the change of heat or cold would otherwise require to be done by hand in the manner used for regulating a common watch." Although the method has since been im-

proved upon by Leroy, Arnold, and Earnshaw, it was the beginning of all that has since been done in the perfection of marine chronometers. Indeed, it is amazing to think of the number of clever, skilful, and industrious men who have been engaged for many hundred years in the production of that exquisite fabric—so useful to everybody, whether scientific or otherwise, on land or sea—the modern watch.

It is unnecessary here to mention in detail the particulars of Harrison's invention. These were published by himself in his "Principles of Mr. Harrison's Timekeeper." It may, however, be mentioned that he invented a method by which the chronometer might be kept going without losing a second of time. This was during the process of winding up, which was done once in a day. While the mainspring was being wound up a secondary one preserved the motion of the wheels and kept the machine going.

After seven years' labor, during which Harrison encountered and overcame numerous difficulties, he at last completed his first marine chronometer. He placed it in a sort of moveable frame, somewhat resembling what the sailors call a "compass jumble," but much more artificially and curiously made and arranged. In this state the chronometer was tried from time to time in a large barge on the river Humber, in rough as well as in smooth weather, and it was found to go perfectly, without losing a moment of time.

Such was the condition of Harrison's chronometer when he arrived in London with it in 1735, in order to apply to the commissioners appointed for providing a public reward for the discovery of the longitude at sea. He first showed it to several members of the Royal Society, who cordially approved of it. Five of the most prominent members—Dr. Halley, Dr. Smith, Dr. Bradley, Mr. John Machin, and Mr. George Graham—furnished Harrison with a certificate, stating that the principles of his machine for measuring time promised a very great and sufficient degree of exactness. In consequence of this certificate the machine, at the request of the inventor and at the recommendation of Sir Charles Wager, First Lord of the

Admiralty, was placed on board a man-of-war, and carried, with Mr. Harrison, to Lisbon and back again. The chronometer was not affected by the roughest weather, or by the working of the ship through the vast rolling waves of the Bay of Biscay. By means of its exact measurement of time an error of almost a degree and a half (or ninety miles) in the computations of the reckoning of the ship was corrected at the mouth of the Channel.

Upon this first successful trial of his chronometer the Commissioners of Longitude gave Harrison the sum of 500*l.*, on condition that he should proceed to make further improvements in his machine. Mr. George Graham urged that the Commissioners should award him double the amount; but this was refused. At the recommendation of Lord Monson, however, Harrison accepted the sum as a help toward the heavy expenses and labor which he had incurred, and was about to incur, in perfecting the machine. He was instructed to make his new chronometer of less dimensions than the first, which was thought too cumbersome and to occupy too much space on board.

He accordingly proceeded to make his second chronometer. It occupied a space of about only half the size of the first. He introduced several improvements. He lessened the number of the wheels, and thereby diminished friction. But the general arrangement remained the same. This second machine was finished in 1739. It was much more simple in its arrangement, and much less cumbrous in its dimensions. It answered even better than the first, and though it was not tried at sea its motions were sufficiently exact for finding the longitude within the nearest limits proposed by Parliament.

Not satisfied with his two machines, Harrison proceeded to make a third. This was of an improved construction, and occupied still less space, the whole of the machine and its apparatus standing upon an area of only four square feet. It was in such forwardness in January 1741 that it was exhibited before the Royal Society, and twelve of the most prominent members signed a certificate of "its great and excellent use, as well for determining the longi-

tude at sea as for correcting the charts of the coasts." The testimonial concluded: "We do recommend Mr. Harrison to the favor of the Commissioners appointed by Act of Parliament as a person highly deserving of such further encouragement and assistance as they shall judge proper and sufficient to finish his third machine." The Commissioners granted him a further sum of 500*l.* accordingly. Harrison was now reduced to necessitous circumstances by his continuous application to the improvement of the timekeepers. He had also got into debt, and required further assistance to enable him to proceed with their construction.

Although Harrison had promised that the third machine would be ready for trial on August 1st, 1743, it was not finished for some years after. In June 1746 we find him again appearing before the Board, asking for further assistance. While proceeding with his work he found it necessary to add a new spring, "having spent much time and thought in tempering them." Another 500*l.* was voted to enable him to pay his debts, to maintain himself and family, and to complete his machine.

Three years later he exhibited his third machine to the Royal Society, when he was awarded the Gold Medal for the year. In presenting it Mr. Folkes, the President, said to Mr. Harrison, "I do here, by the authority and in the name of the Royal Society of London for the improving of natural knowledge, present you with this small but faithful token of their regard and esteem. I do, in their name, congratulate you upon the successes you have already had, and I most sincerely wish that all your future trials may in every way prove answerable to these beginnings, and that the full accomplishment of your great undertaking may at last be crowned with all the reputation and advantage to yourself that your warmest wishes may suggest, and to which so many years so laudably and so diligently spent in the improvement of those talents which God Almighty has bestowed upon you, will so justly entitle your constant and unwearied perseverance."

Mr. Folkes, in his speech, spoke of Mr. Harrison as "one of the most modest persons he had ever known."

" In speaking of his own performances he has assured me that, from the immense number of diligent and accurate experiments he has made, and from the severe tests to which he has in many ways put his instruments, he expects he shall be able with sufficient certainty, through all the greatest variety of seasons and the most irregular motions of the sea, to keep time constantly, without the variation of so much as *three seconds in a week*, a degree of exactness that is astonishing and even stupendous, considering the immense number of difficulties, and those of very different sorts, which the author of these inventions must have had to encounter and struggle withal."

Although it is common enough now to make first-rate chronometers—sufficient to determine the longitude with almost perfect accuracy in every clime of the world—it was very different then, at the time that Harrison was occupied with his laborious experiments. Although he considered his third machine to be the *ne plus ultra* of scientific mechanism, he nevertheless proceeded to construct a fourth timepiece, in the form of a pocket watch about five inches in diameter. He found the principles which he had adopted in his larger machines to apply equally well in the smaller; and the performances of the last surpassed his utmost expectations. But in the mean time, as his third timekeeper was, in his opinion, sufficient to supply the requirements of the Board of Longitude as respected the highest reward offered, he applied to the Commissioners for leave to try that instrument on board a royal ship to some port in the West Indies, as directed by the statute of Queen Anne.

It was not until March 12th, 1761, that he received orders for his son William to proceed to Portsmouth, and go on board the Dorsetshire man-of-war, to proceed to Jamaica. But another tedious delay occurred. The ship was ordered elsewhere, and William Harrison, after remaining five months at Portsmouth, returned to London. By this time John Harrison has finished his fourth time piece—the small one—in the form of a watch. At length William Harrison set sail with this timekeeper from Portsmouth for Jamaica in the

Deptford man-of-war, on November 18th, 1761, and returned to England on March 26th, 1762. On the arrival of the ship at Port Royal the timekeeper was found to be only five and one tenth seconds in error, and during the voyage of over four months, on its return to Portsmouth in the Merlin, it had only erred one minute fifty-four and a half seconds. In the latitude of Portsmouth this only amounted to eighteen geographical miles, whereas the Act required that it should only come within the distance of thirty miles or minutes of a great circle. One would have thought that Harrison was now clearly entitled to his reward of 20,000l.

But the delays interposed by Government are long and tedious. Harrison had accomplished more than was requisite to obtain the highest reward. It was necessary for him to petition Parliament on the subject. Three reigns had passed; Anne had died; George I. and George II. had reigned and died; and now in the reign of George III. an Act was passed enabling Harrison to obtain the sum of 5000l. immediately as part of the reward. But the Commissioners differed about the tempering of the springs. They required a second trial of the timekeeper. Two more years passed, and Harrison's son again departed with the instrument on board the Tartar for Barbadoes on March 28th, 1764. He returned in about four months, during which time the instrument enabled the latitude to be ascertained within ten miles, or *one third* the required geographical distance.

Harrison memorialized the Board again and again. In the following September they virtually recognized his claims by paying him on account 1000l. In February 1765 the Board entered a minute on their proceedings that they were "unanimously of opinion that the said (Harrison's) timekeeper has kept its time with sufficient correctness, without losing its longitude in the voyage from Portsmouth to Barbadoes beyond the nearest limit required by the Act of 12th of Queen Anne, but even considerably within the same." They would not give him the necessary certificate, though they were of opinion that he was entitled to be paid the full reward.

Harrison was now becoming old and feeble. He had attained the age of seventy-four. He had spent forty long years in working at the chronometers. He was losing his eyesight, and could not afford to wait much longer.

Full little knowest thou, who hast not tried,
What hell it is in suing long to bide ;
To lose good days, that might be better spent ;
To waste long nights in pensive discontent ;
To spend to-day, to be put back to-morrow,
To feed on hope, to pine with fear and sorrow.

But Harrison had not lost his spirit. On May 30th, 1765, he addressed another remonstrance to the Board, containing much stronger language than he had up to this time used. "I cannot help thinking," he said, "but I am extremely ill-used by gentlemen who I might have expected a different treatment from; for if the Act of the 12th of Queen Anne be deficient, why have I so long been encouraged under it, in order to bring my invention to perfection? And, after the completion, why was my son sent twice to the West Indies? Had it been said to my son, when he received the last instruction, 'There will, in case you succeed, be a new Act on your return, in order to lay you under new restrictions, which were not thought of in the Act of the 12th of Queen Anne'—I say, had this been the case I might have expected some such treatment as I now meet with.

"It must be owned that my case is very hard; but I hope I am the first, and for my country's sake I hope I shall be the last, that suffers by pinning my faith upon an English Act of Parliament. Had I received my just reward—for certainly it may be so called after forty years' close application of the talent which it has pleased God to give me—then my invention would have taken the course which all improvements in this world do; that is, I must have instructed workmen in its principles and execution, which I should have been glad of an opportunity of doing. But how widely this is different from what is now proposed, viz., for me to instruct people that I know nothing of, and such as may know nothing of mechanics; and, if I do not make them understand to their satisfaction, I may then have nothing!

"Hard fate indeed to me, but still

harder to the world, which may be deprived of this my invention, which must be the case, except by my open and free manner in describing all the principles of it to gentlemen and noblemen who almost at all times have had free recourse to my instruments. And if any of these workmen have been so ingenuous as to have got my invention, how far you may please to reward them for their piracy must be left for you to determine; and I must set myself down in old age, and thank God I can be more easy in that I have the conquest, and though I have no reward, than if I had come short of the matter and by some delusion had the reward!"

The Right Honorable the Earl of Egmont was in the chair of the Board of Longitude on the day when this letter was read—June 13th, 1765. The Commissioners were somewhat startled by the tone which the inventor had taken. Indeed, they were rather angry. But Mr. Harrison, who was in waiting, was called in. After some rather hot speaking, and after a proposal was made to Harrison which he said he would decline to accede to "so long as a drop of English blood remained in his body," he left the room. Matters were at length duly arranged. Another Act of Parliament was passed, appointing the payment of the whole reward of 20,000*l.* to the inventor; one moiety upon discovering the principles of the construction of his chronometers and assigning his four chronometers (one of which was styled a watch) to the use of the public, and the remaining moiety on sufficient proof of the correctness of the chronometers.

Mr. Harrison accordingly, made over to the Commissioners of Longitude his various timekeepers, and deposited in their hands correct drawings, so that other skilful makers might construct similar chronometers on the same principles. Harrison expressed the greatest readiness to explain his inventions, and to subject them to every required test. Indeed, there was no difficulty in making the chronometers, after the explanations and drawings which Harrison had published. An exact copy of his last watch was made by the ingenious Mr. Kendal, one of Harrison's apprentices. This chronometer was used by

Captain Cook during his three years' circumnavigation of the globe, and was found to answer as well as the original. This, as well as Harrison's chronometer, is still to be seen at the Royal Observatory, and both are in a good going condition.

Although Harrison did not obtain the remaining moiety of his reward until 1767, two years after the above-mentioned meeting of the Board, his labors were over, his victory was secured, his

prize was won. Notwithstanding his delicacy of health he lived a few years longer. He died in 1776, at his house in Red Lion Square, in his eighty-third year. It may be said of John Harrison that by the invention of his chronometer, he conferred an incalculable benefit on science and navigation, and established his claim to be regarded as one of the greatest benefactors of mankind.—*Longman's Magazine*.

THE WATER WE DRINK.

BY PROF. SIMPSON, M.D.

THE importance of an abundant supply of good water for domestic purposes is, at the present time, a subject which needs no discussion. In spite of the magnitude of the water-works of the Romans, Greeks, and other ancient peoples, their aqueducts, storage reservoirs, and public baths, and in spite of the lavishness of the supply for public uses and in the houses of the rich, it is probable that there never has been such general and widespread interest as there is to-day in the matter of water supply as a sanitary necessity, not only to the community as a whole, but also to the individuals, no matter how poor, who make up the community. Absolutely pure water is never found in nature's laboratory. The whitest snow, the clearest rain-water, the most transparent ice, all contain air, small quantities of salts, and a little organic matter. Indeed it is only by special processes, carried out with great care, that chemists can obtain water which is chemically pure. Fortunately for us, however, water, which after air, is certainly the most important requirement of our existence, need not be chemically pure. It is sufficient that the impurities in the water we drink, as in the air we breathe, do not exceed certain limits which scientific research enables us pretty accurately to define. Water which exceeds these limits of impurity has long been recognized as one of the most powerful causes of disease, but it is only recently that minute investigation has succeeded in showing the terrible mortality which it inflicts on all classes of the community.

There are, moreover, strong grounds for believing that further and more minute research will show impure water to be even a more formidable evil than it is at present known to be. The danger which lurks in foul water varies according to circumstances; it may lead to a fatal result, or it may only produce a general impairment of health without giving rise to any definite disease. The sources of danger consist of (1st) an excess of mineral constituents, and (2d) the presence of organic matter, either of vegetable or animal origin.

A good drinking water should possess the following physical characters: it should be entirely free from color, taste, or odor; it should moreover be cool, well aerated, soft, bright, and entirely free from all deposit. But it should be remembered that a water having all these physical characters may yet be more or less polluted by organic matter owing to the proximity of drains and sewers.

Mineral Ingredients.—The hardness or softness of a water depends upon the amount of mineral ingredients which it contains. These mainly consist of carbonate and sulphate of lime, the former giving rise to what is called temporary hardness—it being for the most part removable by continued boiling, whereby it becomes incrusted as chalk upon the inside of the vessel in which the water is boiled; and the latter to permanent hardness, because it is not thus removable. A very hard water is injurious for drinking purposes because its power as a solvent for food is impaired,

and because it is absorbed by the stomach with greater difficulty than a soft water, thus giving rise to indigestion or dyspepsia.

In addition to the long train of distressing symptoms which are included under the term dyspepsia, there is strong evidence to prove that the habitual drinking of very hard water also gives rise to goitre, a disease associated in many places with that fearful form of idiocy known as cretinism. In many parts of England goitre is found to prevail only in those districts where the magnesian limestone formation is abundant. In some districts in Switzerland the use of certain spring waters of unusual hardness has been followed by the production or augmentation of the disease in the course of a few days, and similar results have frequently been observed in India.

In certain cases mineral compounds have been found to exist in water rendering it more or less unsuitable for drinking purposes. For instance, where iron is present in sufficient quantity to impart a chalybeate taste to the water, the continued use of the latter has been followed by headache, dyspepsia, and various other unpleasant symptoms. But a more frequent as well as a more dangerous impurity, is sometimes found in water which has been stored in leaden tanks, or conveyed through pipes made of that metal. It has been found that absolutely pure water, recently boiled to deprive it of air, has no chemical action on lead; but if free access of the air be permitted, this same water will rapidly form a compound with the lead which remains for the most part mechanically suspended in the water. Water in this condition is undoubtedly poisonous, the extent of the danger depending on the amount of the metallic compound which it contains. But when water has passed for some time through leaden pipes, the inner surfaces of the latter become coated by a hard deposit which protects the metal from further chemical action, and the water then becomes comparatively safe for drinking purposes.

The question as to the action of water upon lead becomes more complex from the fact that a great deal depends upon the constituents of the water itself. As a general rule soft and pure waters act

freely upon lead, whereas hard waters, containing a large proportion of lime salts, have no such action. But as there are exceptions to this general rule it would be unsafe to rely wholly upon it, and the question as to the action of any particular sample of water upon leaden pipes can only be satisfactorily determined by actual experiment.

Another source of contamination of water by lead consists in the use of syphons in which aerated waters are now so frequently supplied to the public. These syphons are provided with stop-cocks made of pewter, containing a large proportion of lead. The carbonated water thus, especially after long contact, has frequently been found to contain a dangerous quantity of this metal, thus giving rise to chronic lead poisoning. This danger may generally be avoided by having the syphon-taps coated with pure tin before being used.

It has been pointed out by Wanklyn that the sanitary condition of a locality may be considerably influenced by the metallic constituents in the water supply, and that the beneficial effects which so often result from what is termed "change of air," may in reality be due to the change in the minute metallic impurity in the water of the district selected for residence.

Organic Matter.—The presence of organic matter in drinking water is of greater importance from a sanitary point of view than any of the impurities which we have hitherto considered. Water which contains a large amount of vegetable organic matter is decidedly unwholesome, and is liable to produce not only disease of a dysenteric character, but also ague, and other malarious disorders. But the presence of animal organic matter, whether in suspension or solution, is attended with still greater danger to health. Many waters which have given rise to disease have been found to be more or less turbid, owing to particles of sewage suspended in them. Moreover, disease has frequently been traced to the use of perfectly bright and clear water, where there was no sediment, and where the animal organic matter was held in a state of solution. This decaying animal matter may find its way into wells or streams by percolation through the soil, from

cesspools or other sewage accumulations, thus rendering the water a most dangerous poison. The danger is greatest when the sewage is associated with certain specific diseases, such as cholera or gastric fever, in which case the special poisons of these diseases is readily conveyed and propagated by the water.

The examination of drinking water thus forms a very important portion of the duty of those who engage in the struggle against preventable disease;

and let us hope we may see the time, ere long, when the supply of water in purity and plenty shall be looked upon as the business of the State, a measure which would prove a great economy in the end. But pure air and wholesome food are also essential to health ; in short, pure water, pure air, and good wholesome unadulterated food, constitute the pillars of the tripod on which rests the "mens sana in corpore sano." —*Good Words.*

LITERARY NOTICES.

THE SUBJECTION OF HAMLET: An Essay toward an Explanation of the Motives of Thought and Action of Shakespeare's Prince of Denmark. By William Leighton, Author of "Shakespeare's Dream," etc. With an Introduction by Joseph Crosby, Hon. M.R.S.L.

For more than two hundred years learned minds have been baffled by the problem presented in the character of Hamlet. Although he has been sounded "from the lowest note to the top of his compass," still we do not "know his stops." Mr. Leighton, however, comes forward with an explanation which, he believes, furnishes the true key to Hamlet's action, and a means by which we may, once for all, "pluck out the heart of his mystery." He has great confidence in his conclusion, and in supporting it displays much interpretative skill. "When I first read this essay," says Mr. Crosby in his commendatory introduction, "I confess I was surprised at the aptitude with which Mr. Leighton's hypothesis harmonized and dovetailed together the seeming contradictions of motive and action that have made the character such a perplexing study. I re-read the whole play with the sole object in view of testing its validity ; and the more I studied it, the more it grew upon me." Notwithstanding the high regard that is due to Mr. Crosby's opinion in any matter of Shakespearian criticism, we frankly confess that we are unable to find in the application of this hypothesis any such happy harmonizing of the extremes of Hamlet's character ; neither can we share in the conviction that "its simplicity makes it surprising that it has not been enunciated before." It is the familiar "madness" theory improved, and for the improvement the author should receive just credit. He believes Hamlet to be mad, not "in spots and at times," as Mr. Hudson somewhere expresses it, but thoroughly and systematically, in accordance

with a fixed psychological principle. "His mind lacks the governing power of judgment, and this lack is to be insane, unsound." He has no control over his own will, and is subjected to a kind of mesmeric force exerted by all with whom he comes in contact. His sensitive imagination is affected even by the most trivial events ; by a word from Horatio it is set flying into philosophical extravagance, and by the presence of Ophelia or the Queen it is wrought up to the most violent excesses. The skull of Yorick mesmerizes him. His mind "is constantly diverted from one theme to another, forgetting purpose and duty by contact with circumstances and other minds, entangled with every mind he meets by a strange magnetism that makes him assume its thoughts, or reflect or mock its manner of thinking." He has the power of absorbing the thoughts of other minds, but meantime loses the force of his own will. In other words, he is the irresponsible agent of a power not himself, and the pathos of his situation, that which secures interest and sympathy, lies in the fact that he is conscious of this great subtraction from his being and of his inability to remedy it. This constitutes his subjection.

This idea is carefully worked out by Mr. Leighton, and will tend to confirm the opinions of those who are already inclined to regard Hamlet as a madman, but, on the other hand, it will probably not disturb the convictions of those who have faith in Hamlet's sanity. It is certainly impossible to accept the author's alternative to the insanity theory, as presented in the final passage of the essay ; namely, that if Hamlet is not mad, then he is "a sham and a cheat, debasing his soul with lies, trampling on the purest affections, sacrificing Ophelia's innocent life—a cruel and ignoble plotter, who has not even the crown of success with which to hide the ugliness his unfeeling selfishness has stamped upon his brow."

WINNERS IN LIFE'S RACE: or the Great Back-boned Family. By Arabella B. Buckley. Author of "The Fairy-land of Science," etc. New York: *D. Appleton & Co.* Facts and Phases of Animal Life, interspersed with amusing and original anecdotes. By Vernon S. Morwood. New York: *D. Appleton & Co.*

These volumes, though intended primarily for the instruction of young people, will find quite as many readers among the fathers and mothers. The author of the first has demonstrated in previous works her happy faculty for popularizing science in a manner to appeal especially to young minds, without at the same time sacrificing scientific accuracy and method. Nothing better of its kind has ever been produced than the "Fairy-Land of Science." The present volume is the natural sequel to a former volume entitled "Life and her Children," which treated of the lower forms of animal life. The progress of the higher animals, constituting one great family of vertebrates, is here traced in a similar manner. It is shown how the different forms as fish, reptile, bird, and four-footed beast have arisen one after another and taken possession of the land, the water and the air; how in different periods some of those have been left behind forever in the race for life, while others maintaining the struggle for existence, have pressed forward far beyond all other divisions of animal life; and how finally man, the last and greatest "winner in life's race," appears among these higher animals, subduing or destroying them and taking possession of their dominion. Nothing can be so interesting as natural history when written in the charming style of this book. The numerous illustrations have the special merit of illustrating, in the proper sense of the term.

Mr. Morwood's book lacks somewhat in freshness and permanent interest, but forms a pleasant companion volume to the preceding. He describes in a clear and familiar style the structure and habits of many of our more common animals, introducing numerous amusing and useful anecdotes and curious facts, gleaned largely from personal experience. He is, moreover, a kind of special pleader in behalf of these brute companions of ours, who exhibit toward each other "fidelity, love, affection, and other pleasing characteristics" even as men do, and who deserve more considerate treatment than we are accustomed to give them. Much that is interesting is said about bees, frogs, moles, cats, goats, barn fowls, flies, and spiders, nature's "spinners and weavers," and even something good is found to say about rats. Several chapters upon birds, the singers in "nature's great cathedral," give opportunity for pleasing quotations from the

poets, and in connection with dogs and parrots the author touches upon the question of the higher intellectual faculties of animals. He shows that they possess the power of language and reason, and that if this power differ from that of human beings, it is merely a difference of name.

POEMS OF AMERICAN PATRIOTISM. Chosen by J. Brander Matthews. New York: *Charles Scribner's Sons.*

The editor of this pleasant collection, in a prefatory note, describes his plan and purpose as an attempt "to gather together the patriotic poems of America, those which depict feelings as well as those which describe actions, since these latter are as indicative of the time. It is a collection, for the most part, of old favorites, for Americans have been quick to take to heart a stirring telling of a daring and noble deed; but these may be found to have gained freshness by a grouping in order." The poems are arranged chronologically, so far as possible, thus presenting a connected history of American patriotism as told by the poets. Breaks occasionally occur in the story, "chiefly because there are fit incidents for song which no poet has fitly sung as yet." The volume contains fifty-seven poems, representing forty authors. It opens with Emerson's Centennial Boston Ode, and appropriately closes with the concluding portion of Longfellow's "Building of the Ship." With few exceptions the poems are printed entire, and with scrupulous regard to accuracy. Brief explanatory notes are annexed to many of the poems, which are often very helpful. The collection is, indeed, in every respect admirably selected and arranged, and forms a most charming book. The most cursory glance at these favorites, as here presented collectively, cannot fail to inspire one with a renewed sense of pride in America's patriotic achievements, not the least of which is her achievement in song. The extent and excellence of this patriotic poetry will be a surprise to many readers. Indeed it is doubtful whether any nation could make a more creditable showing in this department of poetry.

CAMPAIGNS OF THE ARMY OF THE POTOMAC. A Critical History of Operations in Virginia, Maryland, and Pennsylvania, from the Commencement to the Close of the War. By William Swinton. New York: *Charles Scribner's Sons.*

In reissuing this important work in a revised form the author and publishers have conferred a genuine favor upon the public. It is undoubtedly the most valuable contemporary record of the war that we possess, and its practical disappearance from the book-stores for the space of some ten years rendered the

necessity of a republication almost imperative. It was first published in 1866, when the author was fresh from the bloody fields which he described. Though written with the smoke of battle still lingering in his nostrils, the faithfulness of his descriptions and the general correctness of his judgments have endured the test of subsequent investigation and criticism, and but few modifications of the original text have been necessary. The broad scope of the work may be indicated in a few lines from the opening chapter: "I design in this volume to record, as far as may now be done, what that army did and suffered in ten campaigns and two-score battles, in Virginia, Maryland, and Pennsylvania. This history, if adequately made, must be the history also of much the larger part of that gigantic war that, originating in the secession of eleven states from the Federal Union, ended, after four years, in the establishment of that Union on a lasting basis." The volume is furnished with over twenty maps, drawn with the utmost care, and is also embellished with five beautifully executed steel portraits. The book is in every way a worthy memorial of the noble achievements of the Grand Army.

AMERICAN MEN OF LETTERS. JAMES FENIMORE COOPER. By Thomas R. Lounsbury, Professor of English in the Sheffield Scientific School, Yale College, Boston: Houghton, Mifflin & Co.

It was the dying request of Cooper that no authorized account of his life should be published, and this injunction has been scrupulously and piously obeyed by his family. Accordingly during all these years almost the only available record of the great author's life and work has been the brief memorial oration by Mr. Bryant. The material upon which the biographer must depend is found scattered through the dusty files of innumerable papers and magazines, extending over a period of many years. Under these circumstances the task of preparing an adequate biography of Cooper was an exceedingly difficult one, but it could not have been committed to better hands. Indeed, although deprived of that assistance which is so necessary to biographical writing, according to present standards, namely, the information drawn directly from family, relatives, private papers, and intimate correspondence. Professor Lounsbury has succeeded in presenting not only an excellent, but even an ideal biography. The peculiar difficulties were such as could be overcome only by a scholar trained in methods of scientific accuracy. The simple labor of gleaning the material from the periodical literature of two continents is of itself something appalling to contemplate, especially when we consider that the few grains

of truth were in almost every case to be sifted from a vast mass of contradiction, perversion, and slander. Cooper's unfortunate habit of parading the innermost secrets of his mind before the public upon the slightest invitation, and his long and bitter controversies, in which he won only a succession of Cadmian victories, were prolific sources of material for the feeders of the public press. Out of the tangle of newspaper rubbish and popular scandal Professor Lounsbury has drawn the thread of the great novelist's life with remarkable skill. His indefatigable industry, his judicial fairness, and his critical acumen deserve unqualified praise. Add to these a pleasing and forceful literary style and we have just the combination of qualities needed for this particular work, a combination, moreover, that is not too often found among the professional makers of biographies. A vein of delicate, unobtrusive humor also runs through the narrative, adding frequently a delightful piquancy. In short, Professor Lounsbury's book is in every respect a most admirable piece of literary work.

Many of the facts here presented are of course entirely new to the present generation of readers, and many more that were only half known before will have all the interest of novelty. Not the least strange fact about the career of Cooper was the accident that made him an author. He had lived to be thirty years old without the thought of authorship. In the quiet of his home at Angevine he was one day reading an English novel which did not please him, and, suddenly throwing down the book, he said to his wife, "I believe I could write a better story myself." Challenged to make good his boast, and constantly encouraged by his wife, he soon completed his first novel, entitled "Precaution." This attracted but little attention, but was soon followed by the "Spy," which was a pronounced success, and two years later appeared "The Pioneer," the first of the famous "Leather-Stocking Tales." The first half day's sale of this work was three thousand five hundred copies. The success of these early stories was simply marvellous, and has only a single parallel in literary history. "It is hard to credit," says the biographer, "the accounts that are given on unimpeachable testimony." In 1833 Professor Morse wrote: "In every city of Europe I have visited the works of Cooper were conspicuously placed in the windows of every book-shop. They are published as soon as he produces them in thirty-four different places in Europe. They have been seen by American travellers in the languages of Turkey and Persia, in Constantinople, in Egypt, at Jerusalem, at Isphahan." The account of the period of this literary success reads like a chapter from the

romances themselves, but equal interest will be found in the description of Cooper's residence abroad, and of his intense patriotism, or rather Americanism, which developed itself rapidly while in contact with foreigners. His love of country was an absorbing passion. "It entered into the very deepest feelings of his heart. Even in the storm of calumny which fell upon him in his later years, if the flame of his patriotism seemed at times to die away, any little circumstance was sure to revive it at once." Professor Lounsbury's final chapter is a fine critical summary of Cooper's literary and personal character. Its judgments are carefully drawn, and will probably undergo but very little modification. A few lines upon the moral tone of Cooper's words must be quoted for their peculiar appropriateness at the present time. "Whatever else we may say of his writings, their influence is always a healthy influence. Narrow and prejudiced he sometimes was in his opinions; but he hated whatever was mean and low in character. It is with beautiful things and with noble things that he teaches us to sympathize. Here are no incitements to passion, no prurient suggestions of sensual delights. The air which breathes through all his fictions is as pure as that which sweeps the streets of his mountain home. It is as healthy as nature itself. To read one of his best works after many of the novels of the day, is like passing from the heated and stifling atmosphere of crowded rooms to the purity, the freedom, and the boundlessness of the forest."

THE WISDOM OF THE BRAHMIN. A Didactic Poem. Translated from the German of Friedrich Rückert by Charles T. Brooks. Books I-VI. Boston: *Roberts Brothers.*

Mr. Brooks informs us that he has already made a complete translation of Rückert's original poem, consisting of twenty books. Encouraged by the popularity of the "Light of Asia," and the awakened interest in the poesy and philosophy of the "Morning-land," he has given to the public the first six books of his translation, expressing the hope that they will prepare the way for the acceptance of the whole. We cannot but wish him the success which his indefatigable energy, as well as the real beauties of the poem deserve, but as to the public desire for the rest of his work we can only predict disappointment of his hopes. The qualities which constitute its charm for many readers do not appeal to the popular taste. The author was unquestionably "one who by his long and deep study and sympathy caught the spirit of oriental thought and the style of oriental expression," and he has poured forth in this poem much of the

world wisdom which he has been for years "storing up in his large heart, and evolving out of his creative soul." But moral and philosophical reflectiveness necessarily becomes uninteresting when continued through innumerable verses, with no narrative, no movement, no connection of verses whatever except by means of the numbering of the stanzas. The poem is a collection of brief fables, epigrams, and apothegms, wrought out in graceful measures. Many of them are genuine pearls of thought, soul-lifting sentiments, and many more are commonplace sentences with only the merit of metrical harmony. Open the book at random, however, and something sweet and beautiful will be found, and it is in this manner, in moments of calm thoughtfulness, that the Brahmin's wisdom will be appreciated.

STUDIES IN PHILOSOPHY, ANCIENT AND MODERN. By W. L. Courtney. London: *Rivingtons.*

The table of contents to Mr. Courtney's volume is of most attractive character. Studies of Idealism as it appears in Parmenides and in Berkeley, of Ethics as in Epicurus and in the most recent sociological science, of the Kantian system in its historical form and in its significance for present thinking, of the newest ideas in Psychology and of the most comprehensive philosophy of religion, have interest on their surface sufficient to secure attention for a work in which they are presented. It cannot be said, however, that Mr. Courtney's volume bears out the promise of its contents. He has not done justice either to his subjects or to himself, and one cannot but regard his work with a strong feeling of disappointment. The substance of most of the essays is very thin and unsatisfying, while in many cases the treatment is of so rudimentary a character as to suggest the reflection that the writer was hardly in a position, relatively to his subject, to warrant him in conveying the records of his work to an outside public. In particular does this reflection suggest itself in respect to the essays on the Kantian system which make up a considerable portion of the volume. These essays are very discouraging. For the point of view of the writer, so far as can be gathered from the general nature of his criticisms, would seem to be a modified Kantianism. Yet the remarks on Kant's doctrine of cause, on the historical genesis of the Kantian philosophy, and on the supposed contradictions between the results of the Kantian theory of knowledge and of the Kantian ethics are of such a character that one can hardly suppose Mr. Courtney to be thoroughly master of the work he is crit-

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icising. Even though the difficulties of the Kantian system lay exactly where Mr. Courtney has placed them—and these difficulties seem to Mr. Courtney the very central problem for present philosophy—yet his treatment is too meagre, and in some respects based on too slight knowledge, to have any high value placed upon it as a contribution toward their solution. We regret to be able to find so little satisfaction in these essays; but it is even more matter of regret, both on account of the subjects in which Mr. Courtney is doubtless warmly interested and for his own reputation, that he should have permitted work to leave his hands in an imperfect and unfinished form.—*Academy.*

HISTORY OF THE UNITED STATES OF AMERICA
FROM THE DISCOVERY OF THE CONTINENT.
By George Bancroft. The Author's Last
Revision. Vol. I. New York: D. Apple-
ton & Co.

It is an event of more than ordinary interest in the book world when a new revised edition appears of such a work as Bancroft's History of the United States. A peculiar interest attaches to the event in the present case. Mr. Bancroft is now in the eighty-third year of his age, and the words "author's last revision" are appropriately placed upon the title-page of this edition. The final verdict upon the value of this great work has also probably been passed, and its place in American historical literature permanently fixed. The storms of criticism, from which the author has not failed to profit in many points, have passed away, and the work has secured for itself a high rank among the masterpieces of its kind. The work of the author in the present revision has been mainly that of rewriting certain portions in order to embody the results of the latest researches and the fruits of his own long and mature experience. Occasional descriptive passages, originally too highly colored, have been toned down, and frequent verbal changes have been made for the sake of greater force and clearness in the narrative. The plan of the publishers in presenting this edition is certainly a liberal one. The original octavo edition of twelve volumes is to be reduced to six, with a corresponding reduction of the price. The type is necessarily smaller, but is still large, and the printing is beautifully executed. Indeed, in general mechanical excellence the edition will not be in any way inferior to the original one, and will be in every respect a worthy form in which to preserve the great historian's life work. The present volume covers the period of colonization, extending from the earliest discoveries to the English revolution of 1688.

FOREIGN LITERARY NOTES.

MADAME DR NOVIKOFF is engaged in writing a biography of the late General Skobelev.

THE great edition of Keats upon which Mr. Buxton Forman has been engaged for so many years is now at last passing through the press.

PRINCE KRAPOTKIN has prepared for an early number of the *Nineteenth Century* an article on "Russian Prisons," with the interior of which he is familiar.

MR. A. J. DUFFIELD, who has recently visited the scenes of the earliest discoveries of Columbus and his companions, will publish shortly "American Days: the Romance of a Lost Kingdom."

AN association has been formed for carrying out on a larger scale in England the same scheme of tuition by correspondence, the successful operation of which in Scotland was described recently in *Good Words*.

A HOT discussion is going on among the Parsees at Bombay with reference to admitting proselytes without the ceremony of *bareshnum*, or purification by cow's urine. The leader of the reformers is the learned Dastur Jamaspji.

MR. GEORGE GRIERSON, of the Bengal Civil Service, and Dr. Hoernle, of the Bengal Educational Department, are about to publish a dictionary of the Behari language. The existence of Behari as an independent language has for some time past been officially recognized by the government of Bengal.

MESSRS. GRIFFITH & FARRAN will publish immediately "A Wonderful Ghost Story; or, Mr. H.'s own Narrative," reprinted from *All the Year Round*, with hitherto unpublished letters from the late Charles Dickens respecting it. Mr. Heaphy's remarkable experiences attracted considerable attention when they were first related.

THE December number of the *Vestnik Evropy* (*Messenger of Europe*) contains a production from the pen of M. Tourguenief, entitled "Verses in Prose." It consists, according to the *Novot Vremya*, of a series of sketches composed during the author's recent illness at Bougival, and reflects some of his personal surroundings during the last six years.

DR. SMILES has in the press a biography of the veteran engineer and inventor, Mr. James Nasmyth, whose steam hammer has done so much solid work in the world, as to justify the adoption by its inventor of the motto *Non arte sed marte*. Mr. Nasmyth's varied accomplishments as an astronomer, an artist, and an

archæologist give promise of a volume of unusual interest, while his personal reminiscences extend over a large part of the present century. M. Paul Rajon has etched for the book one of his best portraits, after a painting by Mr. George Reid, R. S. A.

DR. FERRIER is preparing for the press a new and enlarged edition of his work on "The Functions of the Brain," which will embody many new observations and experiments by the author, as well as a critical examination of the various experimental and pathological investigations of recent years bearing on the question of the localization of cerebral functions.

IT is generally affirmed that when Benjamin Franklin first came to England he was employed at Palmer's printing office on the second edition of Wollaston's *Religion of Nature*, and, in fact, Franklin himself asserts as much; but Mr. Solly proves, in an article which will appear in the December number of the *Bibliographer*, that it was the third edition, published in 1725, after the author's death, upon which Franklin worked.

AN important discovery has just been made by two German travellers, Dr. Sester and Dr. Buchstein. On a lofty cliff of the Nimrud Dagh, between Malatiyah and Samsat, where the Euphrates forces its way through the Taurus, they have found colossal blocks of stone covered with Hittite sculptures and inscriptions. The mountain rises in terraces to a considerable height, and it is upon these terraces that the new monuments have been discovered. They are stated to be in good preservation; and, like the sculptures of Boghaz Keni, to represent the deities of the Hittite race. The locality in which they are found once formed part of the kingdom of Komagene, the Kummuukh of the Assyrian inscriptions.

AN article in the *Deutsche Rundschau* by Herr Otto Hausner, member of the Austrian Reichsath, upon the present condition of Polish literature gives some curious figures. During the five years ending with 1881, the total number of works of *belles-lettres* published in the Polish language was 296—namely, 192 in Poland, 80 in Galicia, and 24 elsewhere, chiefly in Posen. Now, the aggregate number of Polish-speaking people is a little over thirteen millions, which gives one book to every 2000, which is exactly the same proportion as in Sweden. In Russia the proportion is one to 10,000; in Germany, one to 2800; in Italy, one to 2200; in Holland, Denmark, and Norway, one to 1900; in England, one to 1800; in France one to 1600.

SCIENCE AND ART.

THE CONSTELLATIONS.—Mr. Robert Brown, Jr., has reprinted from *Archæologia* (vol. xlvii.) a paper which he read before the Society of Antiquaries in March 1881 upon "A German Astronomico-astrological MS. and the Origin of the Signs of the Zodiac." The substance of the paper he has since incorporated in his "Law of Kosmic Order;" but we here have the quaint illustrations of the fifteenth century very skilfully reproduced. Mr. Brown has now satisfied himself that the group of seven human figures do represent the Pleiades, and not the days of the week, as he had at one time thought. It is curious to find the representations of signs thus passing the familiar number of 48 or 49. Pliny says that in his time the constellations were fifty-two in number.

THE SIAMESE.—Mr. Carl Bock, the Swedish traveller, whose explorations in Borneo have been brought before the public in book-form, has recently returned from an adventurous trip into Siam, and has visited many districts where no European has previously penetrated. In spite of the cordial protection offered by the king, and His Majesty's command that Mr. Bock should carry the royal standard of Siam, the white-elephant flag, the traveller met with great opposition in various parts of the country. The inhabitants were not impressed with a sight of the white-elephant flag, perhaps because they had no idea of the importance attached to such a national emblem. Unfortunately, they showed their dislike to Mr. Bock's progress by destroying a large portion of the natural-history collections which he had accumulated.

SCIENCE AND SUICIDE.—With regard to the recent sad suicide of a girl by leaping from one of the towers of Notre Dame, Dr. Bronardeli's expressed view that asphyxiation in the rapid fall may have been the cause of death has given rise to some correspondence in *La Nature*. M. Bontemps points out that the depth of fall having been about 66 meters, the velocity acquired in the time (less than four seconds) cannot have been so great as that sometimes attained on railways—e. g., 33 meters per second on the line between Chalons and Paris, where the effect should be the same; yet we never hear of asphyxiation of engine-drivers and stokers. He considers it desirable that the idea in question should be exploded, as unhappy persons may be led to choose suicide by fall from a height, under the notion that they will die before reaching the ground. Again, M. Gossin mentions that a few years ago, a man threw himself from the top of the Column of July and fell on an awning which sheltered workmen at

the pedestal ; he suffered only a few slight contusions. M. Remy says he has often seen an Englishman leap from a height of 31 meters (say 103 feet) into a deep river ; and he was shown in 1852, in the island of Oahu, by missionaries, a native who had fallen from a verified height of more than 300 meters (say 1000 feet). His fall was broken near the end by a growth of ferns, etc., and he had only a few wounds. Asked as to his sensations in falling, he said he only felt dazzled.—*Nature*.

CHOLERA REMOVED BY A HURRICANE.—A remarkable instance of the beneficial influence of tropical storms has just occurred in the Philippine Islands. The population of Manila was being decimated by cholera, when, at the end of October, a tremendous hurricane swept over the island, almost entirely destroying the town. In less than an hour from the commencement of the storm not a single native house was left standing. But the remarkable fact is that on the following day not a single case of cholera occurred, and not one has been reported in the island since. We are accustomed to regard tropical storms as terrible scourges ; but the good they do in purifying the atmosphere and dissipating disease and disease-germs is sufficient to compensate for all the damage to property which they occasion.—*Colonies and India*.

DR. SIEMENS ON THE FUTURE OF ELECTRIC LIGHTING.—Last week the introductory address of the session was delivered at the Society of Arts by the chairman, Dr. C. W. Siemens, and his remarks were principally confined to the relative economy and advantages of electric and gas lighting. The dynamo machine will, when conditions are favorable, transform ninety per cent of the motive force into electricity, and the apparatus itself is subject to but little depreciation, except that when currents of high potential are used, the copper wire slowly becomes brittle. One fourth of a square mile appears to be the largest area which can be satisfactorily and economically lighted from one centre. Take, as an example, the proposed lighting of the parish of St. James, which would require no less than a motive force of 33,220 horse-power, to drive the necessary dynamo machines ; and if even these were installed in a central position, the copper conductors would have to be about eight inches in diameter. The maintenance of each 16-candle incandescent light might be expected to cost about 21s. 9d., against a cost of 2s. for the same light as produced by gas ; but this estimate appears to make no allowance for leakage and loss of electricity, and such incidental expenses as collection of rates ; while the gas estimate is founded on a

clear selling price of the gas. If the cost of the gas were estimated on the same lines as Dr. Siemens adopted for his electrical estimate, the 2s. would be reduced to between 1s. and 1s. Dr. Siemens deprecated the prevalent system of rash electrical speculation, and paid a just tribute to Professor Pacinotti, as the inventor of the so-called Gramme-ring.—*Public Opinion*.

INSECT HIBERNATION.—Miss Ormerod's lecture, given at the Royal Agricultural College, Cirencester, on "The Effects of Weather on Insect Life," contained some interesting observations relating to hibernation. The lecturer pointed out that this phenomenon was a distinct condition from the mere effect of cold, and assumed a constitutional influence, under which, at a certain season, insects instinctively prepared a shelter for themselves. This shelter was specially selected under leaves or stones ; and in some cases they prepared a cell to protect their bodies, while they passed into a motionless state, with functions decreasing in power with increase of cold. Though frozen so hard that they could be broken across like dried sticks, many kinds of caterpillars were not injured by the cold so long as they were protected in the shelters which they had selected or made for themselves. The remedy for getting rid of such pests was for farmers to cultivate their land in the autumn, so as to throw out and expose the creatures to the frost, thaw, and wet which followed. The egg-laying places—rank grasses and weeds—should be destroyed ; and it should also be remembered that liming and the use of chemical manures are important factors in diminishing the number of insect pests.

PEAT-MOULD FOR DRESSING WOUNDS.—The phrase "Recommended by the faculty," has been long a favorite one with clever advertisers, who know well that the majority of persons look upon doctors as magicians and their drugs as infallible. Indeed, the superstition natural to man may be said to show itself principally in the modern belief in drugs ; hence the success of any patent medicine which is sufficiently well advertised. But beyond ordinary drugs, there are a number of well-known remedies for various complaints, which, under the care of garrulous old nurses and others, have been handed down from generation to generation, and frequently employed ; but which are neither recognized nor recommended by the faculty. An instance in point is afforded by a means of dressing wounds which has been successfully practised by Dr. Neuberg. Two years ago, a laborer presented himself who had sustained, some days previously

a compound fracture of both bones of the fore-arm. A comrade at the time of the accident had surrounded the limb with a thick paste of peat-mould. Dr. Neuberg, on examining the wound, found that it was healing beautifully, and without suppuration. The limb was then better fixed, redressed, and the man made a good recovery. The doctor was then led to investigate the properties of this peat-mould, which doubtless had had so much to do with the patient's rapid recovery. He found it to be, as is well known of it in peaty districts, a powerful antiseptic, and to take up nine times its own weight of water. Its soft nature allows it to be placed in bags in required positions on the body, and it has the further advantage of being cheap. This peat-mould, the virtues of which have thus been transmitted to us by a laboring-man is likely to prove a most useful agent in dressing wounds.—*Chambers's Journal*.

MISCELLANY.

CHILDREN'S BOOKS.—“There is no harm,” said Sir Walter Scott, “but, on the contrary, benefit, in presenting a child with ideas beyond his easy and immediate comprehension. The difficulties offered—if not too great or too frequent—stimulate curiosity and encourage exertion.” We are so constituted that, even at the maturer state of our minds—when length of experience has rendered the feeling of disappointment one almost unjustifiable in our eyes—we find the sense of interest in a given object and feeling for its beauty to precede, far more than to follow, its comprehensions; or, it were better said, the belief of fully comprehending. But with children, who live only in anticipation, this is more conspicuously the case; in point of fact, they delight most in what they do *not* comprehend. Those, therefore, who insist on keeping the sense of enjoyment rigidly back till that of comprehension has been forcibly urged forward—who stipulate that the one shall not be indulged until the other has been appeased—are in reality but retarding what they most affect to promote; only producing a prostration, and not a development of the mental powers. In short, a child thus circumstanced is only submitting his understanding, not exerting it—a very deplorable exchange. Of course the quality of such works varies with the writer, although the principle of neutrality remains the same; and sometimes a little frothy liveliness of dialogue is exhibited which might perhaps amuse an older generation, but is thrown away upon children. At least their notions of smartness and repartee are limited. They like the jingle of words which compose a pun, but the point is utterly

lost on them. Nor can it be otherwise, since all wit and irony derive their point from a knowledge of the world, which cannot exist in children, or is sure to disgust if it does. A practical joke is, therefore, the only form of wit which they understand and always like, but in an abstract way. The fable-book is their only Joe Miller, and that as much for the marvellousness as the humor of its contents. They can see fun in the connection of human speech and ideas with the nose of the fox or the tail of the raven, while the far-fetched wit of a fellow-child will strike them as great nonsense. Children are sharp casuists as to what is put into a child's mouth. They detect intuitively what is absurd, or what is unnatural; and could we see into their hearts, we should find a secret contempt for; or grudge against, the little pedantic spokesmen whose perorations form the greater part of such volumes. Under the best circumstances we doubt whether children who are beyond mere boyhood enjoy the histories and pictures of their own “life and times” as much as their elders suppose. For us these scenes of childhood, described as some of our modern writers can describe—for us these scenes have an ineffable charm; but we must remember that we stand in a directly contrary position to their ostensible readers. We look fondly back to childhood—they ardently forward to maturity; we magnify the happiness of the past—they only that which is to come. For them men and women are gods and goddesses; and no description of the paradise they now occupy interests them half as much as a peep into the Olympus which they hope one day to climb. The real secret of a child's book consists not merely in its being less dry and less difficult, but more rich in interest, more true to nature, more exquisite in art, more abundant in every quality that replies to childhood's keener and fresher perceptions. Such being the case, the best of juvenile reading will be found in libraries belonging to their elders, while the best of juvenile writing will no longer fail to delight those who are no longer children.—*Quarterly Review*.

COLD DRINKS IN COLD WEATHER.—There is a practice against which many persons, and particularly public speakers, need to be put on their guard—namely, drinking cold watery beverages in cold weather. The body becomes heated with the excitement and physical and mental exertion of addressing crowded assemblies. Nothing is more natural than to desire, under such conditions, a draught of some cold beverage. Now it happens that cold drinks are depressing in their influence, and the result of taking such draughts when performing more than common feats of strength and endurance,

particularly in middle-age and advanced life, is to lower the tone of the nerve centres at a time when it is most desirable that they should be in exceptionally good working order, so that they may retain the vitality necessary to meet unusual need. So far as we are aware, the physiological effect of iced potations taken hastily when putting forth special strength and making a peculiarly large demand on the vital force of the nervous system, is either not understood or is forgotten. For the sake of the many zealous statesmen and politicians who do not seem to have given the need of special precautions in this particular a single thought, it is desirable to point out that the worst illnesses may, and do, proceed apparently from insignificant causes. This is one of the petty causes which may give rise to sad results.—*Lancet*.

ARE MUSHROOMS POISONOUS?—The deaths which are frequently reported from the consumption of supposed edible fungi render this question an important one. Professor Ponfick, of Breslau, has lately made experiments on the common mushroom, and the practical results obtained are interesting and valuable. It appears that all common mushrooms are poisonous—a fact not sufficiently understood—but cooking deprives them in a greater or less degree of their poisonous qualities. The repeated washing with cold water which they usually undergo to clean them takes away a portion of the poison, and boiling does the rest; but the water in which they have been boiled is highly poisonous, and should always be carefully disposed of. Experiments which Professor Ponfick made on dogs showed that if a dog ate its own weight of raw mushrooms it fell sick, but recovered; if it ate one and a half per cent the poison had a more violent but not fatal effect, and if it ate 2 per cent it was inevitably fatal. The water in which mushrooms had been boiled was far more poisonous than the raw mushrooms; while the mushrooms thus boiled could be taken without hurt to the amount of 10 per cent of the weight of the dog's body. Washing with cold water does not remove all the poison, so that mushrooms thus prepared were poisonous when taken in large quantities. Dried mushrooms are still dangerous for from 12 to 20 days, and also the water in which they have been boiled. They require to be dried for at least a whole month, and are really only safe after four months' drying. These are important facts to be borne in mind.

EARTH-WORMS IN NEW ZEALAND.—The following interesting observations form part of a communication from Mr. A. T. Urquhart, to the editor of the *New Zealand Journal of Science*, and appear in the September number of that periodical. In October 1875,

I dug a trench on some newly-cleared land—a raised beach at Manukau Harbor. The section then showed about 4½ inches of black mould and a horizontal layer, 1 inch thick, of burnt clay, wood-ashes, small stones, and pumice lying on a brownish green arenaceous clay. The vegetation cleared was the growth of some thirty years. A portion of the land was left undisturbed. Measurements again taken a few days ago gave an average depth of 1½ inches of turf, 5½ inches of black mould, and there was no perceptible difference in the layer of ash. An angular block of Trachyte—about twenty-five pounds in weight—placed in May 1875, had sunk 1 inch, allowing for the turf. As the results of some accurate calculations, as to the number of worms per acre, Mr. Urquhart gives results so considerably higher than Henson's, that he would have hesitated to publish them, were he not in a position to prove them. Henson, it will be remembered by the readers of Darwin on "Vegetable Mould," calculates that there are 53,767 worms per acre in garden mould, and above half that number in corn-fields. Mr. Urquhart's estimates, founded on digging about a quarter of an acre, as well as by a large number of tests on various parts of the fields, some that were under pasture for over sixteen years, gave from four to twenty-six earth-worms per each square foot. The alluvial flats, slopes, and richer portions of the upper lands would average eight to the square foot or say 348,480 per acre. In the uncultivated fern lands worms are scarce. In New Zealand worms not only leave their burrows, but climb up trees in search of food; this chiefly in the night time, though often until a late hour on damp warm mornings.

MOSES IN THE BULRUSHES.

(Suggested by the picture by Paul Delaroche.)

BY KATE TAYLOR.

Adrift upon the waves, fair child,
How seemed the earth to thee?
The rushes bowed, the heavens smiled;
Thou wert so fair to see!

Thy timid sister took her stand—
Hidden from mortal sight—
And shaded with her sun-browned hand
Her eyes of orient light.

The rushes rustled in the wind,
The waves were cool to see—
The Princess came; her looks were kind,
Sweet child, thus finding thee.

Thy mother, with firm faith divine,
Had left thee to His care
Who makes the glorious sun to shine,
The broad earth green and fair.

Would we could learn from faith so firm
To cast our care on Him!
Then fewer hearts despair would learn,
And fewer eyes be dim.



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PUBLISHER'S MISCELLANY.

THE FUR TRADE.

THE fur trade, like the railroads and the oil business, seems largely an industry of monopolies. A local authority asserts that the greater portion of all the furs worn by the civilized world have to go through the hands of the English Baronet Sir C. M. Lampson, who has been styled the "Grand Mogul of Furs." The values of furs fluctuate on both sides of the water with the movement of the London market, where great sales are held quarterly. The prices then obtained rule as the standard throughout the world. Sealskins are now as in the past the leading article in the trade. The animals are caught in Siberia, Alaska, British America, and the United States, but the skins are nearly all obtained by dealers through the before mentioned English Baronet. All the prominent fur merchants in the world are represented at his mart in London in January, May, July, and October, and compete in these auctions for the purchase of skins. It is said that another great corporation has practically stepped into the shoes of the famous Hudson Bay Company, which was, in olden times, the head of the trade. Little by little its supremacy is reported to have slipped away, and the new rival company, which holds a contract with the United States Government for the seal fisheries of Alaska, sold 87,000 skins in London last year. The October sale in London fixed the sealskin prices lower than at the previous sale, and Alaska skins were sold 20 per cent cheaper than last March. Sea-otter fur, like the sealskin, is very highly prized by furriers, and a single skin has been sold as high as \$300. The average wholesale price, however, ranges between \$40 and \$80. America furnishes great quantities of the muskrat skins, some of the best of which are secured in the immediate vicinity of this city. Fur traders say that the once popular mink and marten skins have gone decidedly out of fashion, while the fur of the red and gray fox has become correspondingly popular.

THE PRODUCTION OF ANTIQUITIES.—There are thousands of persons abroad in the land looking for avenues of escape for their money, and an army of handy workmen with wares to sell to do what they can to make such outlets numerous and easy. It is an old story

that antique furniture, two or three hundred years old, dated from any desired landmark in history, is turned out every year in great abundance by those who are skilled in the business. Old clocks, old dressers, old bedsteads, and old anything, even if made yesterday, have great value in the eyes of many persons satisfied with antiquity in appearance. Worm-eaten furniture is now one of the rages. This furniture is easily produced with the aid of bird-shot, which is fired into it. Old houses torn down furnish worm-eaten timber of which the set of furniture used by Philip of Spain was made. France produces old Roman and Sèvres ware by the carload. Limoges enamels are plenty. The new ones (nearly all are new) are buried in moist earth a month and then dated back 300 or 400 years, according to the wants of the customer. He can be suited as to age. The famous ware of Henry II.'s time is produced the year round. Treated with fluorhydric acid it becomes painfully old in a short time. A vase worth 20s. has been known to advance to £300 with the aid of ten cents worth of acid. In Berlin, pottery used by the Romans—all the Caesars—can be had by the crate.

INTERESTING DISCOVERY.—At the point where the River Euphrates bursts through the Taurus range an important archaeological discovery has been recently made by a Bavarian gentleman. In a wild, romantic district he found a line of megalithic monuments averaging between 16 and 18 metres in height, bearing inscriptions and in a quite remarkable state of preservation. Herr Lester, the discoverer's name, has no doubt that they formed part of some great national sanctuary, dating back some 3000 years or more. It is known that there formerly existed at this place a necropolis of the old Commagene Kings, so that it is argued that it seems reasonable to attribute these colossal monuments to the ancient people, the hereditary foes of the Assyrians.

SILK-WORM INDUSTRY.—A crop of about twenty-five hundred silk-worm eggs, worth a thousand dollars, was gathered in April and May from a four years' orchard of three thousand white mulberry plants, by Mr. Farnach, his daughter, and a laborer in Raleigh, North Carolina.

A KNABE IN THE WHITE HOUSE.—There was seen recently at Messrs. Knabe & Co.'s factory a magnificent concert grand, just finished by them for the presidential mansion. President Arthur, who is a thorough connoisseur of music, in selecting a piano for the White House, decided in favor of the Knabe Piano as his preference, and ordered accordingly the instrument referred to. It is a concert grand of beautiful finish in a richly carved rosewood case, and of superb tone and action—an instrument worthy in every respect of the place it is to occupy. It was shipped to its destination.

EDMUND YATES.—In an interesting two-column letter on the London *World*, published in the *Tribune* recently, it is with entire accuracy said that "probably no man in the history of English journalism has enjoyed such an exceptional position as the proprietor of the *World* has conquered by sheer ability and perseverance. The latter word is used advisedly, for never did man work more diligently to achieve success than Mr. Yates. Married early, with four children to bring up on the salary of a clerk in the Post-office, he began at once, like many government employees here, to look on literary work as a kind of help to his salary, and when quite a youth produced a dramatic notice and a copy of verses for a guinea, after the scale of remuneration not uncommon in London thirty odd years ago. Soon afterward he became one of the most active of 'Mr. Dickens's men,' then dramatic critic of the *Daily News*, and subsequently developed into a brilliant novelist, '*Land at Last*' and '*Black Sheep*' being conspicuously successful. Afterward, in Paris, in connection with the late Grenville Murray, the *World* was determined upon, and the two, putting up £600, announced it 'in the most impudent prospectus ever written.' It is great fun to talk over these things now with Mr. Yates, who, quite admitting the impudence of many of his crude efforts, will yet wink his eye after the manner of G. A. Sala, and observe, 'You must beat the drum, or nobody will come to the show.'" The letter then goes on to speak of the principal writers on the *World*, who are among the cleverest men in England. The *World* is now one of the institutions of Great Britain. It is read by more intelligent people than any paper in Europe, and is oftener quoted than any other journal, because from beginning to end, week after week, it is thoroughly original and entertaining, and furnishes that which everybody likes to read. Mr. Yates deserves the brilliant success he has so ably and indefatigably won.

COPYRIGHT ON POPULAR PLAYS.—Mr. Bartley Campbell has been very successful, pecuniarily, with his plays, mainly from the fact that he is a good business man, and personally manages the performing of them. Mark Twain is said to have realized some \$100,000 from the sunny Colonel Sellers. Bronson Howard derives a handsome income from royalties and percentages on his plays. Usually the royalty is \$25 for each performance. For his new play, *Young Mrs. Winsthrop*, just brought out successfully at the Madison Square Theatre, Mr. Howard has received \$3000 in cash, with a contingency on future receipts. The limit of this contingency is \$12,000, to be paid in instalments of \$3000 for every 180 nights. Mr. Howard retains the right for England. Mr. Hart Jackson, who adapted the *Two Orphans* for the Union Square Theatre, is reported to have received \$75,000 in royalties for that play. Joaquin Miller received a large income from *The Danites*. But the dramatist who has received the largest révénue from his plays, either in ancient or modern times, is Mr. Boucicault.

BABBLING WOMEN.—A law of Virginia passed in the year 1662 reads as follows: "Whereas, many babbling Women slander and scandalize their Neighbors, for which their poor Husbands are often involved in chargeable and vexatious Suits and cast in great Damages: Be it enacted, That in Actions of Slander occasioned by the Wife, after Judgment passed for the Damages, the Woman shall be punished by Ducking; and if the Slander be so enormous as to be adjudged at greater Damages than Five Hundred Pounds of Tobacco, then the Woman to suffer a ducking for each Five Hundred Pounds of Tobacco adjudged against her Husband if he refuses to pay the Tobacco."

BOOKS RECEIVED.

[The Publisher will send any book reviewed in the ECLECTIC, or any other new publication, postage paid, on receipt of the price.]

Boys in the Mountains and on the Plains. By WILLIAM H. RIDING. New York: D. Appleton & Co. Large 12mo, cloth, pp. 345. Price, \$2.50.

Heart of Steel. By CHRISTIAN REED. New York: D. Appleton & Co. 12mo, cloth, pp. 543. Price, \$1.25.

Uncle Gabe Tucker; or, Song and Sentiment in the Quarters. By J. A. MACON. Philadelphia: J. B. Lippincott & Co. 12mo, cloth, pp. 161. Price, \$1.25.

A Whimsical Wooing. By ANTON GIULIO BARRILL. New York: Wm. S. Gottsberger, pp. 88. Price, 25 cents.

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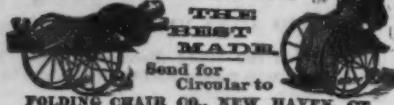
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